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JOHNSTONE & DUNCKLEE.

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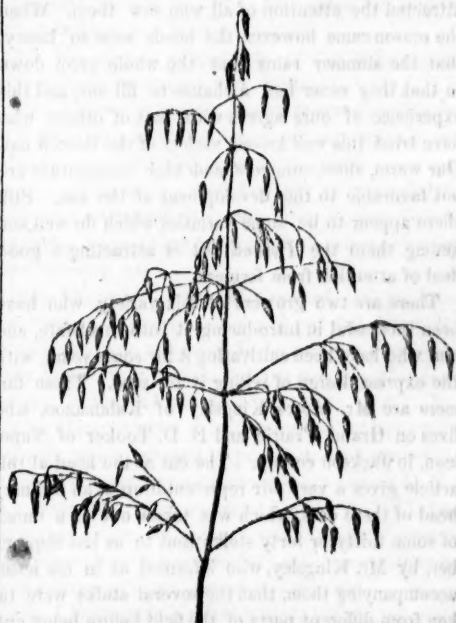
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Oats—The Poland Variety—Carrots.

The oat crop during the three past seasons has assumed new aspects, and become of much more importance as a money supplying crop to the farmers of this state, than it has ever been previously. It is therefore of some consequence that its cultivation should be attended to. Oats are much more frequently sown as an alternating crop than barley; and they are frequently sown with grass seed, as being a very proper spring crop to sow when seeding down to grass. The demand for them appears also to be increasing for shipment, while the price per bushel has been maintained at high and remunerating rates. During the past season, the crop was so promising, that for a short time after harvest, the rates paid were not so high as they had been during the spring, but still the average price has been in this market from 33 to 37½ cents per bushel wholesale. This will pay, e.

pecially when all will acknowledge that it will not need the oldest inhabitant to recollect when half that rate was considered a fair price for this grain.

The growing importance of this grain, has the effect of turning the attention of farmers to new varieties; and among these new varieties as a matter of course there are some which will be found much more suitable to our climate and soil than others. We recollect some years ago procuring a few bushels of the celebrated Hopetown oats direct from Scotland, and sowing them under what we considered favorable circumstances; though we must admit the soil was rather too much inclined to a soft loamy sand to be first rate oat soil. The crop grew very rank with a stoutness of stalk, and a promise of yield which attracted the attention of all who saw them. When the season came however, the heads were so heavy, that the summer rains beat the whole crop down so that they never had a chance to fill out; and this experience of ours agrees with that of others who have tried this well known variety of the Scotch oat. Our warm, short summers, and high temperature are not favorable to the development of the oat. Still there appear to be some varieties which do well, and among them the *Poland oat* is attracting a good deal of attention from farmers.

There are two growers of this variety who have been successful in introducing it into this State, and and who have been cultivating it for some years, with the express design of selling it for seed. These farmers are Mr. Moses Kingsley of Kalamazoo, who lives on Grand Prairie, and D. D. Tooker of Napoleon, in Jackson county. The cut at the head of this article gives a very fair representation of an ordinary head of these oats, which was taken out of a bunch of some thirty or forty stalks sent to us last September, by Mr. Kingsley, who informed us in his letter accompanying them, that the several stalks were taken from different parts of the field before being cut, without regard to selecting the best; but with a design to have them an average sample. These samples are now hung up in our office. They measure in height from five feet, to five feet and a half. The panicles of some of the heads measure from fourteen to sixteen inches, and contain from 80 to 150 grains in each. The grain itself is heavy, large and plump; and we think would weigh over 36 pounds to the bushel. But we will let Mr. Kingsley speak as to the weight of his own crop himself. Meanwhile we give the experience of a cultivator of oats who took the first premium of the New York State Agricultural Society last year, with a sample of these very Poland oats. The name of this New York farmer is E. M. Bradley, of Ontario county. In his report of the method of cultivation, Mr. Bradley says: "The ground on which the oats were grown, was manured in the spring of 1853, with about thirty loads of common barn-yard manure to the acre, and was afterwards

plowed and planted to corn, yielding that year at the rate of 60 bushels of shelled corn. The soil is a gravelly loam, about ten inches in depth, with a subsoil of red clay. The field slopes towards the south east. In the month of November, 1853, after the corn was taken off, the field was plowed with a single team, to the depth of about eight inches, and let lie all winter. During the second week of April, the field was thoroughly harrowed, and then sown with about two and a half bushels of the White Poland oats to each acre. The seed was thoroughly harrowed in, and the field then rolled. There was no other culture. During the last week of July 1854, the crop was cut, being ripe full one week to ten days earlier than the common oat. The crop was cut with the cradle, and after being set in stooks well capped, till thoroughly dry was taken to the barn where it was threshed with a machine about the middle of October. The yield was then found to measure 167½ bushels of merchantable oats, weighing 39 pounds to the bushel, or 204½ bushels of 32 pounds each.

The whole expense of growing this crop was as follows:

Three days plowing, harrow and rolling at \$2 00.....	\$6 00
Six bushels of seed at \$2.00, sowing, 25 cts.....	12 25
Three days harvesting, at \$1.50.....	4 50
Moving the crop to the barn.....	2 00
Threshing and measuring crop.....	7 50
Interest on land at \$75 per acre.....	12 60
Total.....	\$44.85

Mr. Bradley valued these oats at \$1.00 per bushel; but if we calculate their value as a mere marketable article, calling them what they are worth here in this State, namely, 35 cents per bushel, we will find that there would be received as re-payment for the above expenditure, \$71.44 for oats, and for 6 loads of straw \$12.00 more; or at the rate of \$31.25 per acre. Such a yield, and such a return will amply repay some extra care in getting the land in order, and also any exertion which the farmer may be at to procure the right kind of seed.

Scotch oats, when grown under favorable conditions yield a grain which weighs from 40 to 42 pounds to the bushel; but the moist climate of that country is very favorable to the growth of the oat. Oats are generally considered an exhausting crop, and, where they grow in the greatest luxuriance, it is upon soils of a rich, clayey loam, or, on alluvial soils inclining to be of a gravelly nature. It is calculated that a crop of oats equal to 63 bushels to the acre will remove from the soil the following mineral matter: The oats will weigh 2016 pounds, and contain 60.5 lbs of ash. The straw and chaff will weigh 3024 lbs. and contain 138.4 lbs. of ash, and the mineral constituents have been found by Messrs. Way & Ogston, after a careful analysis to be as follows:

	In the grain.	In the straw
Silica.....	27.2	69.6
Phosphoric acid.....	15.2	7.1
Sulphuric acid.....	1.1	4.7
Lime.....	2.2	9.8
Magnesia.....	3.8	6.3
Peroxide of iron.....	0.6	2.1

Potash.....	0.2	27.3
Soda.....	0.9	2.7
Chloride of potassium.....	0.0	3.8
Chloride of sodium.....	0.3	6.0
	60.5	128.4

Professor Emmons in his report upon the agriculture of New York, gives the following as the results of analysis made by him, of the grain. He takes fifty bushels of 32 lbs to the bushel, as an average crop, or 1600 pounds of oats, and his analysis gives results as follows:

	In the grain.
Silica.....	28.15 lb.
Phosphates.....	26.000
Carbonate of lime.....	0.053
Magnesia.....	0.071
Potash.....	16.968
Soda.....	4.888
Chlorine.....	0.023
Sulphuric acid.....	1.814
Phosphates of potash and soda.....	6.747
	84.820

Oats are found to contain in the average composition, in 100 parts

	Air dried
Of nitrogenized substances or flesh-forming principle.....	13.6
Of non nitrogenized substances, such as go to	} starch.....55.5
sustain animal heat, or to form fat,	
	fiber.....14.8
Inorganic matters.....	3.3
Water.....	12.8
	100.00

which show that oats contain starch in large proportions, that it is rich in fat-forming matters, being next to Indian corn; that the proportion of flesh-forming matter is larger than in wheat, barley, Indian corn, rye or buckwheat, and for the production of muscle, no grain is equal to it. It is this quality which makes it so valuable for horses, especially where a great quantity of work is required.

Carrots have frequently been commended as a root on which horses could be fed with as good results as upon oats, but when we compare their constituents, it will be seen that 100 pounds of carrots so far as muscle is wanted, is equal to but 10.9 lbs of oats; and for fattening qualities, 100 pounds of carrots is equal only to 20 lbs of oats, or computing by the bushel, and allowing a bushel of carrots to weigh 60 pounds, and oats 32 pounds, a bushel of oats for working horses would be worth about five bushels of carrots; and for fattening, one bushel of oats is equal to nearly 2½ bushels of carrots. The most recent and reliable analyses give the following results with regard to the carrot.

Flesh-forming matter in 100 parts of the carrot.....	1.45
Heat giving matter.....	11.65
Ashes.....	0.81
Water.....	86.10
	100.0

Letter from Mr. Kingsley.

[The following letter was received from Mr. Kingsley after the above article was written, and in answer to a series of inquiries which we made to him, for the purpose of learning how his experience agreed with that of Mr. Bradley. We are certain that Mr. Kingsley was not acquainted with the statements of Mr. Bradley, and had not seen them; yet this complete coincidence, in relation to the early ripening qualities

and the superior weight of these oats, is remarkable. We also call attention to the fact that Mr. Kingsley drilled in his seed, and that saved a large proportion in sowing, while Mr. Bradley rolled his land after the seed was sown. Are not these instances of careful cultivation worthy of notice and attention by farmers everywhere?]

EDITOR MICHIGAN FARMER:—You ask for specific information in regard to my experience in raising Poland Oats. So far as I have data from which to write, I will give you facts.

1st. My present crop was raised on prairie soil.

2d. Eight acres were sown upon land in corn in 1854, and pasture in 1853; four acres on land in wheat in 1854, and fallowed in 1853.

3d. No unusual preparation of the soil; plowed with a single team; oats were drilled in.

4th. I sowed 10 bushels on twelve acres, eight acres at 3 pecks per acre, four acres at one bushels per acre, no perceptible difference in the yield.

5th. They were sowed from the 2d to the 7th of May, and harvested from the 10th to the 15th of August. I think they are from 7 to 10 days earlier than common oats.

6th. The yield, I have not threshed, judging from the number of sheaves, they will not fall below 60 bushels, perhaps will reach 70 bushels per acre;—am daily expecting to thresh, if I can give you the exact amount in season I will do so.

7th. Have weighed a half bushel of my last year's growing, which weighed 19 pounds and 14 ounces.

8th. I procured my seed from Wayne county, N. Y., of a gentleman by the name of Tanner, in 1853; beyond that I have no positive data, but have always understood it to be a new variety, as its name indicates, from Poland, of a very recent introduction.

9th. I have probably 500 bushels beyond my present orders, for sale, and they are perfectly pure from any admixture of other varieties.

MOSES KINGSLEY.

Kalamazoo, Dec. 12, 1855.

Gratiot County.

A young farmer, who is about preparing for a home on a new farm in Gratiot, thus speaks of that part of the state in a recent letter, and promises to tell us more about it in future. He says:—

"The soil is very fertile and produces the most splendid specimens of vegetables, &c., that I ever saw. They have a pumpkin here measuring six feet in circumference, and other things in proportion, raised on new ground, without any plowing. The timber is heavy, consisting of beech, maple, oak, elm, ash, utternut, and pine in places."

We have promise of correspondence from this county, also from Sanilac and other new counties, whose rich resources we shall be glad to make public through the *Farmer*.

Fairs—Farmers' Needs.

The institution of Fairs has become a note-worthy feature of the times. The annual exhibition of the products of artistic skill, and of the arts of industry, of fine animals, of fruits, flowers and vegetables, is now an established custom with every civilized people. Here in America, we have town fairs, county fairs, State fairs and World's fairs. There never was, perhaps, a more popular and useful public custom. They impress upon this period a *distinctive* character: and when the future Historian in his researches, shall look back into the past social and civil condition of man,—when he shall come to number the ages by their remarkable features and events, he will denominate this as the PERIOD OF FAIRS; when the most cunning artificers in gold, in silver, in wood and stone, displayed to view their ingenious devices; when the richest grains of the fields, the substantial produce of dairies and manufactories; the proudest horses, and the "cattle from a thousand hills," were exhibited for public inspection and public benefit. This will be the record of the future historian.

The interest taken in fairs the present autumn, by all classes of men and women, and the *grandness* of the exhibitions, cast a shadow upon the attempts of all former years. The papers, everywhere, record the excellence and profuceness of the animals and articles shown. But satisfactory and encouraging as all this really is, and much as we may, and should, admire such noble collections of useful, beautiful and luxurious products, we cannot but think after all, that the *farmer* is of more consequence than his *farm*, and that his personal well-being is of vastly more importance than the produce thereof;—and yet, though talked about, written about, praised and flattered, though the profoundest scholars in both hemispheres, and the Press with a million of tongues are arduously laboring for his improvement and welfare, the farmer of 1855 is not, by a great deal, the man he should be. He *don't think enough of himself*; he *don't* estimate highly enough his position in the great world of business and vocation; he does not possess as he ought, an intelligent consciousness of the influence which his professional life throws around the rising race, like the soft radiance of an autumnal sunset. Would that we could make this influence a *tangible* thing, and show that "it is the solitude and freedom of the family home in the country, which constantly preserves the purity of the nation and invigorates its intellectual powers." The battle of life carried on in cities, gives a sharper edge to the weapon of character, but its temper is, for the most part, fixed amid those communings with nature and the family, where individuality takes its most natural and strongest development.

Should it ever for once, become the stern necessity of the world, that its cities must replenish its wasting

population, how long would the physical constitution and mental vigor of the race endure? Not a century would elapse before we should discover unmistakable signs of weakness and imbecility. It is a remarkable truth, that nearly all of our best and wisest men were born and reared upon the farm,—and back to its peaceful and quiet delights they are sure to return, when wearied and worn down by the cares and anxieties of active business life.

We see then what an influence rural life exerts;—how much this influence may be increased by making a home in the country all it should be, by strengthening every attachment, by adding every external sign of beauty which may awaken love in the young, and over which the memory will fondly linger in maturer years, is not even to be guessed at; there is absolutely no limit to its controlling and guiding power.

But farmers are anxious to accumulate great wealth, and in prosecuting this desire they forget their persons, they forget the dignity and great importance of their vocation, and they neglect the proper cultivation of their minds, believing that it is more *profitable* to cultivate the earth, saying to themselves, "education is of no use in raising cattle and grain." Gentlemen, we must let this money-mania drop, and go to work to elevate our calling *educationally*. We must do this mainly *ourselves*. Learned men cannot do it. Owing to the low state of learning among us, our young men are every day going over to other professions—the *learned* professions, as they are called—in contra-distinction to the manual labor professions, a distinction that grinds every true man to the heart, to know that it exists. And yet, it is a distinction which is just, because it is founded upon the greater intelligence of the members of those professions. We do not blame young men for craving a thorough education, nor for seeking those walks and pursuits of life which are likely to conduct them to honor and distinction; on the contrary we highly commend their ambition.

But the agriculture of the country is thus drained of its young men, and farmers are obliged to depend upon ignorant foreigners for needful help. Now the way to remedy these evils, and the only certain way, is to *elevate our profession*,—to make it a *learned* profession. We must get off the old *Grandfather Platform*, which teaches that to be a farmer, all the poor boy needs to know is enough to "cast up a load of wheat" or onions; but if he is to be a doctor, minister, or lawyer, he must go to college;—and get up on the *Intellectual Platform*, whose enlightened doctrine is, that to *filly* occupy the high position of a farmer at this portentous day, the boy, or man, must not only understand the common English branches, but be thoroughly versed in Natural Philosophy, Chemistry, Botany, Animal and Vegetable Anatomy and Philosophy, Geology, Mineralogy, Meteorology, Entomology, the Art of curing the Diseases of Animals,

Mensuration, Leveling, Book-keeping, the Mechanical arts connected with Agriculture and Political Economy; but to be a Doctor or a Lawyer, he may go to *Sevastopol* or *Kansas*.

We are not the men the world is just now beginning to think we are, if we aim at anything short of this. Why just think, how few, thoroughly educated farmers we have in the country. There are not ten, nay not five, perhaps in America, who have been educated for the profession of farming, *especially*. We are then greatly *below par*, in this matter; for while we have been drudging along in the old beaten track, the Educational Institutions of the country have been turning out annually, ministers, lawyers, doctors, professors, teachers and merchants; completely fitted for their respective callings, so far as scholastic training can do this, and made familiar with everything which can contribute to success in their professions, or give them character and influence in society; and though constituting not more than one fortieth part of the whole people, they have done most of the *thinking*—the intellectual labor of the world for all past time. This has given them a vast, and according to numbers a disproportionate influence, extending everywhere, and everywhere commanding respect.

But this is all right, and well,—it is an homage due to learning which all men cheerfully accord. But what we regret is, that we honest and unpretending farmers should have neglected so long to establish and endow institutions of learning, where we might thoroughly educate our sons for the business of farming—yes, the *business* of the art in all its branches—and where they might also acquire those useful accomplishments, which lend to professional life its glare, harmony and influence, in so great a degree.

Well, thank God, we have such an Institution in progress, in our own State. (While it gives us great pleasure to record this fact, it is sad to relate, that the whole country, besides, is nearly destitute.) We have founded near the Capital, an AGRICULTURAL SCHOOL, with a noble farm of 500 acres attached, for experiments in all manner of culture, in raising grain and vegetables of all kinds, in the rearing, feeding and fattening of animals,—all to be done by the pupils who attend the school. The day on which the Legislature passed the Act for the establishment of this school, making ample provisions for its endowment and for the purchase of a large farm, was one of the proudest days Michigan ever enjoyed. It was a proud day, because of the intrinsic merit of the act, and because she was the first State, or political sovereignty, in the New World, to take efficient steps in this matter, and through her assembled Legislature, to pass a public act, for the foundation and endowment of an AGRICULTURAL COLLEGE, where the sons of farmers and mechanics may obtain a thorough knowledge of all those sciences so closely interwoven with the prac-

tical affairs of agriculture,—and obtain it *free of all expense*.

Never before in this country, or in any other country, was such an opportunity offered to young men and boys to obtain a thorough education. The sciences here taught will be those connected directly with practical life, and the knowledge gained will be of some service beyond the recitation room. It is to be a manual-labor school; science and practice are to be united—yoked together and worked together like brothers—for brothers they are, and they must necessarily sustain each other.

We must watch the growth and development of this institution with a parental interest, and make it a settled thing that our sons are to go there from the common school, to learn science and to learn how to apply it successfully to the practical pursuits of life.

We have extended this article beyond common rule,—the great importance of the subject is our apology.

B.

Washtenaw County Fair.

BY S. B. NOBLE.

On the 10th, 11th and 12th days of October, the festival of the Washtenaw County Agricultural and Horticultural Society was held at Ann Arbor. The officers of the Society in connection with the committee of arrangements, made a good location where to hold their fair, and fitted up the grounds in good order for the reception of articles for exhibition, to accommodate exhibitors as well as visitors.

Old Washtenaw has fully sustained her former well-earned reputation for having one of the best exhibitions of any county in the State. We think it one of the best county fairs we ever attended. Its success, beyond the most sanguine expectations of its warmest friends, is another evidence of the utility of such annual gatherings, being mutually beneficial to all particularly interested. The fair was very well sustained in all of its departments.

The display of horses was large, embracing many of the best blood of the various kinds usually on exhibition, from the large and majestic steed to the diminutive pony.

The exhibition of cattle was very large, including some of the very best stock of the State, either for beef, milkers or working, pure bloods and their crosses.

The sheep department was, as it usually is, well represented with French, Spanish, Saxon, Silesian, and Leicestershires. The latter are a large bodied, long woolled variety, and with the Southdowns are well adapted for raising where wool and mutton are both an object to produce.

Swine were not as well represented as might have been, but some fine specimens of the porker race were on the ground.

The display of poultry was good, but not equal to, Oakland county. Shanghais, Chittigongs, Cochins Brahmas, Dorkings, ducks, geese and turkeys, all combined to make all sorts of chords, concords, discords and no chords by their crowing, cackling, quacking, and gobbling, the Guinea fowls performing the chorus.

The display of vegetables was large beyond any former year, including all the varieties of culinary vegetables and field crops, all of large growth, showing a high state of cultivation.

There were exhibited fine specimens of field seeds, including wheat, oats, corn, peas, beans, barley and other seeds.

The fruit department was sustained by a very large display of apples, of which there are no better than Washtenaw can produce. Pears, peaches and grapes, a few good specimens; several superior lots of quinces, and some very fine melons.

The dairy was well represented by the exhibition of superior lots of butter and cheese equal to any we have seen. The bread and honey were of excellent quality.

The department of domestic manufactures displayed a large collection of blankets, cloths, cassimeres, flannels, carpets, coverlets, quilts, yarn, stockings, in quantity and quality exceeding any former exhibition; showing conclusively that the ladies of Washtenaw in this department and the dairy, are fully competent to their share of the burthen of sustaining the county fair.

The carriages exhibited by Ostrander & Rich, S. A. Sperry, Hoskins & Burnett, were of the best order for style, finish and durability.

Stoves by Goodrich & Son, C. Goodrich & Risdon, made a good appearance, a proportion of which were manufactured by them, which for style and finish compare with any.

Guterman & Brother were on hand with a fine lot of ready made clothing, in quantity and quality sufficient to justify the adage that "the tailor makes the man."

Follett, Yost & Co. of Ypsilanti, made a fine display of millinery articles.

Norton & Son, and Martin & Sperry showed a very good assortment of chairs and cabinet furniture.

Barrels and tubs by Prudens.

Harness and saddlery were by Spoor.

A case of dentists instruments by Messrs. Porters.

A case of hats and caps by Thornton.

Jewelry and fine cutlery by C. Bliss and J. C. Watts.

Indian rubber washing machine by Woodruff.

Wilnot & Co. were represented by a case of books and fancy stationery.

Dodge & Co. by books and lithographs.

Book-binding by Frey & Nitchkie.

A case of confectionery by H. Schlack, was noticed by the Masters and Misses with a wishful eye.

Portable cider mills by C. H. Bennett, of Plymouth.
A dog-power churn by W. D. Holmes.

The nonpareil apple pearer by Penfields of Detroit.

Agricultural implements were on the ground in great profusion, from reapers and mowers down to the smallest article. Moses Rogers, of Ann Arbor, the greatest manufacturer of implements of general use in the State, was at his post with sixty-eight different articles, of workmanship equal to the best, and of the most approved patterns.

Goodrich & Son were on hand with plows and other articles of their own manufacture. We know of no county in the State better supplied with manufactures of agricultural implements than Washtenaw.

Floral hall was fitted up tastefully under the superintendence of the Misses Clark and the pupils of their school, highly creditable to their taste and skill. The octagonal form of the flower stand, the shelves of which were carpeted with mosses of velvet-like appearance, studded with green-house plants and evergreens in variety, and evergreens hanging in beautiful festoons above, around and across the hall, on which were suspended neat cages of Canaries, who would occasionally hold forth in strains of sweetest music; the dahlias, exotics, and indigenous flowers, in vases, bouquets and wreaths in rich profusion, all combined to make floral hall the centre of attraction. Overlooking the whole, was to be seen the ever watchful eye of Miss Poll Parrot, in all her pride, eager to see and be seen.

Within the hall were exhibited a large collection in the fine arts department, evincing taste and skill of high order, among which were oil paintings, upon velvet and canvas, by Misses Norris, Corbin and Strong, and others; lithographs by Dodge & Co.; pen drawings and penmanship by Joslin & Spaulding; pencil drawings by Miss Doty and Miss Dodely; leather work by Mrs. Pond and others; beautiful hair work by Miss Francis and Mrs. Rickseker; silk and worsted embroidery by Miss McIntyre, Miss Fobey, Mrs. Winchell and others; monocromatics by Miss Brewer and others; crayolithics by Miss Taylor and Miss Strong; fine specimens of needle work, by whom, we did not learn; statuary by Deforest; two cases of stuffed birds by Brooke; daguerreotypes by Parkhurst; artificial flowers by Misses Cook, Haran & Knight, and many other articles of taste and skill, but by whom offered we do not know.

Taking the display of Floral Hall as a whole, it was grand and imposing, and did credit to all concerned.

Not many articles attracted more attention than one of Gilmore's Patent bee houses, with six swarms of bees, exhibited by L. W. Bodwell, superintended by J. A. Cook, from the land of steady habits. Mr. C. is perfectly at home among bees, showing and explaining the management of them so that they can be perfectly controlled by any one. Some supe-

rior specimens of honey were to be seen, and the mode of feeding.

At two o'clock of the second day, the large concourse of visitors were favored with an address from Hon. K. S. Bingham, Governor of Michigan, in his usual eloquent manner. The subjects discussed were of the most practical kind, and were listened to attentively. The Governor shows himself to be at home on the subject of agriculture, and no doubt the instruction imparted will be duly appreciated.

The number of entries made in all the departments were over twelve hundred, larger than ever before. The receipts were correspondingly large. The zeal manifested by the officers of the society, by the several committees, by the citizens of the county at large, and by exhibitors, shows beyond doubt, that when old Washtenaw moves, something will surely be done.

The Upper Peninsula—Its Agricultural Capabilities.

MR. JOHNSTONE:—In fulfilment of my engagement, I come forward to take my place among the correspondents of the *Farmer*. I hardly need say to your readers that my somewhat protracted silence is not to be attributed to an estrangement on my part, either from the *Farmer* or the great cause of agricultural reforms. That would be impossible. So long and ardently have I labored in this field,—so pleasant the remembrances which come thronging upon me from the past, that I could not, if I would, disavow my sympathies from the cause.

In the contributions I am to make to the present volume of the *Farmer*, I shall avail myself pretty freely of material collected in my travels abroad, and especially of facts and illustrations which have fallen under my observation in other countries, in elucidation of the subjects I may have in hand from time to time.

In the first place, however, I would direct the attention of your readers to a portion of our own State, whose agricultural capabilities are as little known and appreciated by our people, as almost any equal portion of territory on the other side of the globe. I refer to the Upper Peninsula, commonly called the "Lake Superior country." And what I have to say respecting it, is the result of my own personal observation, made during an exploring tour of several weeks. Previously to this trip, I shared in the common ignorance, and the common prejudice.

The mistakes of our people, however, in reference to that portion of our State, are not wider from the mark, than were those of our fathers in reference to the lower peninsula, which was put down in Morse's Geography (a standard work for schools and Academies but a few years back,) as one vast swamp, unfit for agricultural purposes. A few surveyors and others had touched upon its eastern border, and finding it

wet as far as they had the courage and enterprise to penetrate the forest, they hastened back with their report of the swampy character of the whole territory of Michigan;—and all the world believed it, and as a consequence, the best wheat State in the Union was shunned as a quagmire, and for years abandoned to reptiles and beasts of prey.

In like manner, a few transient persons, scooting along the shores of Lake Superior, and noticing only the forbidding aspect of the coast, have guessed at the rest, and affixed the stigma of barrenness to the whole peninsula, locating it so far away in the frozen North, as to make it unfit for the abodes of men, and suited only to the habitations of the beaver and the otter, the martin and the lynx, and all the world believed it.

When I was at Mount Sinai, the devout remark was made to me by a monk, (an inmate of the Greek Monastery there,) that the whole Arabian Desert, (where the Israelites sojourned forty years, and which I was about a month in crossing,) was to be regarded as, in a peculiar sense, God's country, no human being ever having owned it, or claimed it, or pretended to. This was said with an air of great apparent veneration for the holy character of that heaven-abandoned region.

And thus too, our upper peninsula, has, till quite recently, and with limited exceptions, to this time, been abandoned, as a free-will offering to Him who created it, and for the same reason, viz: because it was not considered worth taking.

Even when it was given us as an offset for the little strip of land at Toledo, it was considered rather an act of presumption on the part of our authorities, that they should take it upon themselves to convey a proprietorship in a tract of country which, by universal consent, had been regarded as never intended by the Creator for the occupancy of human kind; and the alternative was acquiesced in by our people rather as a matter of necessity, than from any expectation of an accession to our available resources.

The discovery of copper and iron there, in such purity and abundance, very materially affected the opinions of our people in respect to the value of the country; still, all its immense mineral resources were confined to little patches and strips, and buried in the bowels of the earth, where the miner might burrow and pursue his work, while above ground, the whole country, from lake to lake, was regarded as worthless and uninviting as before.

As I had been schooled into these impressions of the character of the country from my boyhood up, an examination of its agricultural capabilities scarcely entered my calculations at all, when I started upon my Lake Superior trip. My visit to that region, however, has wrought so entire a revolution in my views that I can now say with confidence to those who are looking for some new land of promise, that no portion

of the west presents a more inviting field to the agriculturist, than this same Lake Superior country, not even the fertile prairies of Illinois.

In my tour, I traversed the whole Lake Superior coast, from the Sault to Fon du Lac, a distance of five hundred miles, touching at several points, and making excursions of from twenty to seventy miles into the interior. These excursions were made chiefly at Marquette, Keweenaw Point, Ontonagon, mouth of Montreal river, and Fon du Lac. In reference to my inland trip at Marquette, I find the following notice in my journal.

"In this inland tour of forty miles, I have been most agreeably surprised to find such a body of good land; just along the shore it is sandy and light, but a mile or two brings you to a good strong soil, a sandy and gravelly loam, with an admixture of clay, and quite productive. The timber is maple, yellow birch, ironwood, and, in places, hemlock, balsam, &c., with scattering white pines, (sometimes thickening into a pine-ry,) many of them very tall and large. The face of the country is generally rolling, sometimes hilly. Upon a high, hilly farm, with frequent out-croppings of slate, and protruding masses of trap upon it, ten or twelve miles inland, I found timothy up to my chin, and stout enough to turn three tons to the acre. The owner informed me that the farm had been under cultivation six years, and had been manured but once in that time. He calculated that the crop upon the ground would yield him thirty tons of hay, which at the market price, (forty dollars per ton) would bring twelve hundred dollars. And yet this farm did not seem to rise above the average of the country I traversed, for quality of soil.

"A little way from the farm above mentioned, I found abundance of hops growing wild; the people are in the habit of gathering them every fall for their own private use, and they say they are of excellent quality. Hops in the lower peninsula are regarded as rather a precarious crop, on account of their liability to be nipped by the frost, but here they mature well—a fact which seems to show, that any crop which will mature in the lower peninsula, will also mature here. The whole region through which I passed, presents as many features of interest to the agriculturist, as almost any equal portion of the lower peninsula, and will, some day, be studded all over with fine farms. Even the light sandy soil along the coast, produces excellent crops. Hitherto the few engaged in agriculture here, have devoted their attention mainly to the culture of grass, oats and potatoes, but they are introducing new crops every year, and so far as the trial has been made, no crop refuses to grow luxuriantly and mature. The ground never freezes, being protected by the snow, and potatoes are left undug until spring, not only with impunity, but generally to their benefit, their constitutional vigor being thus preserved unimpaired. The Lake Superior potato is a great

luxury to me. Much of the soil is well adapted to wheat. Its liability to be smothered by the snow may be obviated by later sowing.

Recently a road has been cut sixty miles through the forest southward across the peninsula, from Marquette to Little Bay de Noque at the foot of Green Bay, and I was told by persons that had traveled the route, that it passes through a fine farming country, there not being five miles of swamp in the whole distance. Of course the driest route would be selected for a road, but from all I can learn, there is far less waste land upon the peninsula than those most favorably impressed, have ever imagined. True, there are cedar swamps, barren pine plains, and granite ranges, but it is also true, that large intermediate tracts of excellent farming land constitute a leading feature of the country.

Marquette is a hundred and fifty miles from the foot of the lake. Forty miles east of it, and one hundred and ten from the Saut, is Grand Island, which with the adjacent main land, forms one of the finest harbors in the world, perfectly land-locked,—inland from which lies a fine farming country, covered by the unbroken forest, save an opening which has been made by a solitary family. Still farther down the coast, a little below the world-renowned pictured rocks, and about eighty or ninety miles from the foot of the lake, is the Grand Marais, a mountain of sand projecting into the lake, almost longitudinally with the coast, behind which reposes a secure and quiet harbor, with a back country which presents an inviting aspect to the cultivator of the soil.

Ninety miles the other way from Marquette lies Keweenaw Point, projecting diagonally into the lake, and forming the bay of the same name between it and the main land. This tongue of land, so famous for its copper mines, I traversed a distance of some seventy miles, (on foot and by boat,) through an excellent agricultural country the whole way. At the Portage Lake mines, I found crops which would do honor to any soil, and had accounts of yield, which almost staggered belief. It is a delightful region. This lovely lake of more than twenty miles in length, has a navigable outlet into Lake Superior.

At Ontonagon, which is as much farther up the lake, I took a jaunt of some fifty miles in the interior, visiting various mining locations, and found the country generally very similar to the region back of Marquette, which I have already described. At all the mines which have made much progress, I found agricultural improvements and fine crops. At the Toltec I found Indian corn in the silk the first of August, and was told that the year previous it matured well; and where Indian corn will mature, little fear need be entertained for any crop.

Mr. Sales, the superintendent of the Toltec, and several other mines, is quite an agriculturist. His barn is not surpassed for convenience by any I have met with in the lower peninsula.

Forty miles still further up the lake is the mouth of the Montreal river, which separates Michigan from Wisconsin. Here I found an old improvement of the American Fur Company, long since abandoned, and overrun with small trees, among which were patches of timothy and redtop nearly as high as my head. Penetrating inland a few miles, I found a good strong soil, passing in the route an old Indian sugar-bush, some of the trees being all scarred over from the effects of tapping; then followed a patch of wild gooseberries, and then quite a field of red raspberries, which equalled the Antwerps, or any other garden variety, in size and flavor, the spot having been formerly occupied by squatters.

There is no end to the water power here. The Montreal river is the second in size upon the northern coast of the peninsula; after descending the Porcupine mountains, in wild and rampant impetuosity, it meanders for miles through luxuriant natural meadows, then tumbles and foams two or three miles down a rapid, when it gathers itself up and pitches down a precipice eighty three feet at two leaps, (upon the location of the Cambrian Co. two or three miles from the lake) then rushes down another rapid two or three miles, where, in full view from the lake, it leaps another precipice sixty feet, presenting a spectacle of wild magnificence rarely witnessed. I will add, that water power is abundant in nearly every portion of the peninsula, the numerous rivers and clear-running streams, making their way with headlong haste to the lake.

Twenty-five miles above the mouth of Montreal river, repose, in tranquil beauty, what are called the "Apostles' Islands," a group almost countless in number, lifting up their green heads from the bosom of the lake, all crowned with their native forests, (except, to a limited extent, at La Pointe,) presenting a scene of great rural beauty. Their productive soil, numerous land-locked harbors, and delightful natural scenery, present no ordinary attractions.

It was not until I reached the head of the Lake, and entered the St. Louis river, (which separates Wisconsin from Minnesota,) that the scene began to change. Ascending that river twenty-four miles to the first rapid, I found its waters sluggish, and discolored, the country on each side low and marshy, and the adjoining uplands barren, yielding dwarf pines and apparently worthless. In the low, inundated grounds, wild rice abounds, which seems to be the only agricultural product of which the country is capable, and constitutes the main subsistence of the Indians, their mode of harvesting it being as follows:

Three of them enter a canoe, one of whom paddles it through the standing rice, while the other two, are seated, one upon each side, with a stick in each hand, one of which is used to bend the straw over the edge of the canoe, and the other to whip out the heads into it, and thus a breadth of two or three feet

on each side of the canoe, is beaten into it as fast as it is rowed along:

Such is a bird's-eye view of the agricultural character of the country. Still there are two things to be taken into the account in any general estimate of its advantages and disadvantages. If it be an inhospitable climate as has been alleged, or if there is to be no ready market for produce, then is there a material drawback upon the advantages I have enumerated.

In respect to climate, I hesitate not to pronounce it one of the most desirable in which I have ever sojourned in any part of the world. So pure and bracing is the atmosphere in summer, that it is becoming a place of resort, both for pleasure-seekers, and invalids. And the universal testimony of those who have spent a winter there, is that they have never passed one so comfortably and pleasantly elsewhere in their lives. The degree of cold is somewhat greater there than in the lower peninsula but so uniform is it, when it sets in, through the entire season, until the opening of spring, and so dry is the atmosphere, that it is not near as sensibly felt as with us. This I found to be the universal testimony of those who live there.

In respect to market facilities, the country enjoys equal pre-eminence. Nothing like a sufficiency of produce to supply the demand for mining purposes, has yet been raised in the country, and, as a consequence, the ruling prices have been about double what they have been with us, and for many years to come, there is no prospect of a sufficiency to fully supply the rapidly increasing demand. And if ever a surplus is raised, there will be readier access to the eastern market, than from the shores of Lake Michigan.

If I were asked what particular points in the Lake Superior region I would deem most eligible for agricultural purposes, I should name the vicinities of Marquette and Ontonagon, the former being the only shipping port of the greatest iron region in the world, and the other the commercial depot of the numerous copper mines in the Ontonagon district, and both in near proximity to a large extent of fertile country. Into the beautiful bay on which stands Marquette, and which forms its fine harbor, three rivers, (Chocolate, Carp, and Dead,) empty themselves, besides numerous smaller, clear-running, pebbly-bottomed streams two or three of which are seen frolicking along right through the village. These rivers and smaller streams, all come tumbling down from the high-lands, furnishing in their descent, some of them all the way down to the lake, an amount of water power which can never be exhausted, and abounding, many of them, in that most delicate fish that swims in our inland waters, and sought after by the epicure, the brook trout. Marquette enjoys the farther advantage of being a hundred and sixty miles nearer the foot of the lake than Ontonagon, and so far as beauty of situation is

concerned, it has no rival upon the lakes. There the canal company have located their land-office, and the large extent of fertile lands owned by them in the neighborhood, will now be brought into market, and an opportunity afforded for making selections. Thither also the Lake Superior Journal has been removed; the place is fast rising in importance, and is destined soon to be a large and flourishing port, probably the leading one upon Lake Superior, and at the same time a favorite place of summer resort.

In these remarks I have confined myself entirely to the agricultural aspect of the country, and the inducements it holds forth. The numerous interesting things pertaining to the mines, and mining operations, the many picturesque scenes which fell under my observation, the geological formations of the country, which are not transcended in interest by any other on the globe—all these I have passed, as inappropriate to your columns. Most respectfully yours,

WARREN ISHAM.

The Cause of the Motion of Sap in Growing Vegetables.—No. One

BY H. R. SCHETTERLY, OF GRAND TRAVERSE.

The propelling forces of the sap, heretofore assigned by physiologists, are three, namely:

First. The pressure of the atmosphere upon the liquid absorbed, forcing it into the sap-vessels as it does into a pump-stock. The objections to this assumption are. 1. That the vacuum which is essential to it does not exist in the sap-vessels. Doctor Hales, whose experiments are admitted to stand yet unrivalled, attached open glass tubes to the cut ends of various vegetables, into which the sap overflowed; and found that air rises and floats on the surface of the sap in the tubes, even against the pressure of the atmosphere, to the height of an inch or more. This proves that there is a plenum of air or gas in the sap-vessels, instead of a vacuum; and the outward pressure of this plenum must, consequently, resist the entrance of the sap with more force than the atmosphere presses into them, for otherwise it could not rise from the cut end of the vegetable into the tube. 2d. In order for the atmosphere to force a liquid into a vacuum, it is indispensable that the receiving vessels have open mouths permanently submerged beneath the surface of the liquid; for otherwise the air will enter the vessels instead of the liquid. But the roots of all vegetables terminate in 'imperfurate vesicles,' termed spongioles; and no physiologist will contend that these cease to absorb as soon as they are no longer surrounded by a liquid. Such pools, on the contrary, injure growing vegetables. 3. Dutrochet has proved that when a plant is partly dried, without changing its structure, and when there is consequently a partial vacuum in its vessels, it absorbs much less liquid than before drying. "For one plant that had lost one

third of its weight by evaporation, absorbed much less than another which had lost only a tenth."

Second. Common capillary attraction is assumed as one of the causes of the rise of sap. But common capillary attraction could elevate it only 48 or 53 inches at most, even if the sap-vessels were only one thousandth part of an inch in diameter; for La Place has proved that the height to which liquids will rise in capillary tubes, is inversely proportional to the diameter of those tubes; and Professor Matteucci states that in such tubes, one hundredth of an inch in diameter, liquids rise 48 inches, while Cavallo and others make it 5.3. Again, in Dr. Hale's tubes, the force of the rising sap made the sap-vessels overflow, and elevated a column of mercury from 12.5 to 14.5 inches which is equivalent to the pressure of a column of water from 14 to 16.3 feet high in the tubes, or about seven pounds upon the square inch, while capillary tubes never overflow, however short they may be; showing that the force in vegetables is at least four times as great, and therefore different from common capillarity.

Third. Since Dutrochet discovered the principle of Endosmose, physiologists, having keenly felt their inability to account for the circulation of sap, have seized upon this also to eke out their defective chain of causation. But the conceded fact that endosmose (the passage of a rarer into a denser liquid through a membranous or other barrier) cannot take place unless there be, at the same time, a corresponding exosmose of the latter into the former; and they therefore assume again, that, so soon as the water has been absorbed by the spongioles, it mixes with the secretions of the vegetables, and becomes denser, so as to create its own indispensable condition, which is tantamount to the absurdity of making cause and effect reciprocally cause and effect of each other. But Bruke, whose experiments Baron Liebig calls admirable, has proved that the ascending sap flowing from the cut end of a grape vine when the circulation is most vigorous, is even purer than spring water; and Dr. Carpenter rather unwillingly acknowledges that the ascending sap is not much, if any, different from the purest water; the ascending sap of all vegetables being nearly or quite alike, while the descending is as various as the properties of the secretions of vegetables themselves.

Hence it appears that the conditions under which only the pressure of the atmosphere and endosmose can act, do not exist in growing vegetables; and capillary attraction alone remains as a foundation of the popular theories to rest upon. But admitting for the sake of argument, that the three agencies above examined produce the utmost effect they ever display under the most favorable circumstances, and their combined action can raise sap only 37 feet 9.7 inches, while in Oregon trees grow nearly 300 feet high. Besides, neither of the above causes can have the least agency in producing the downward circulation of the sap;

nor can this be accounted for on the principle of gravitation, particularly in pendant limbs, as those of the weeping willow &c. And Dr. Carpenter concedes accordingly, that the cause of the downward circulation remains entirely unexplained, no adequate cause having hitherto been assigned for it; while Mulder, in his elaborate Treatise, denies that there is a downward circulation, because there can be no effect without a cause. But, in this instance, he not only confesses his ignorance, but denies the evidence of his senses and a fact conceded by all other physiologists; for, if a string be tied round a tree, it continues to grow above it, but ceases to grow below, showing that the sap continues to ascend in the deeper seated vessels, while its descent is interrupted and nutrition stopped by the constriction in the more superficial ones, caused by the string. Hence it is manifest that there must be another, a far more potent cause of the circulation in vegetables, than any yet announced.

(To be continued.)

On the December Farmer.

MR. EDITOR:—As your columns are always open for the expression of opinions on agricultural subjects, I will make a few remarks on part of the contents of the December number.

The paper on the "Meteorology of the United States," is deserving of attention, and a little consideration of it will show how interesting Meteorology becomes when it is correctly explained. A meteorological table does not possess much attraction in itself; but when the changes in the weather, indicated by the fluctuations of the barometer, are explained and their effect on *health and vegetation*, demonstrated, the subject will be found worthy the farmer's attention. I am glad Mr. Holmes intends to favor us with his views. Mr. Russell has given his opinion that many of the atmospheric phenomena of this country, and much of the variation of temperature &c are caused by those grand features of physical geography which stand out in such bold relief, and render North America so strikingly different from the other grand divisions of the earth. The sudden transition from heat to cold, and from dry weather to rain, he attributes to the intermingling of two great currents of air, the one blowing westerly from the Pacific ocean, the other the south wind from the gulf of Mexico. The former being generally cold and dry, the latter warm and moist.

Mr. Russell cordially acknowledges the assistance he received from the scientific Literati of America, and it is a pleasing sight to behold the labors and investigations of the correspondents of the Smithsonian Institution properly appreciated in Europe, and published to the world by the British Association for the advancement of science.

Wm. F. Sands, of Jonesville, has written a very useful article, on a very important subject—Rotation of

Crops. In a new country, it is very difficult to observe a judicious rotation; for a sufficient quantity of land is not cleared; but this objection is being removed, and a *clear stage*, will soon be presented, on which the farmer can perform one of the grandest and most important arrangements in agriculture.

Experience has shown that after a soil is completely exhausted, of those substances which are necessary to support *one kind of crop*, a change may be made and the soil will be found capable of producing a crop of a different description, and this *fact is of the greatest importance to the agriculturist for upon it is founded the theory of "Rotation of Crops."*

The whole art of rotation consists in suiting the crops to the nature of the soil, and *varying these with each other* in such a manner that whilst the greatest amount of produce is raised off the land, still the soil shall not be impoverished. Thus when a grain crop has been raised, a quantity of phosphates and nitrogen has been extracted from the soil. Returning the straw to the ground in the shape of an ingredient in barn-yard dung, will restore the salts which have been abstracted, while the nitrogen may be returned by growing green crops. A *grain or white crop*, should always be succeeded by a *green crop*; by this means weeds will be banished, for they will not or ought not, be suffered to grow, or ripen their seeds in a green crop; and hurtful insects will be torn up, before their time, and exposed to destruction. The fertility of the soil will be preserved by a judicious rotation.

It is a remarkable fact, that each grain crop has its particular green crop after which it thrives best.

Thus after turnips, barley succeeds best, after grass oats, after potatoes beans or clover, wheat.

The following is considered a good five course rotation:

- 1st. year green crop or mowed fallow.
- 2d. do Wheat.
- 3d do Artificial meadow (clover and grass.)
- 4th. do Pasture.
- 5th. do Corn or oats.

By this plan it will be seen, that two crops of grain are never raised in succession off the same field, and that the clover is succeeded by pasture, or meadow, which is broken up for corn, or oats.

The following is a four course rotation, which in some cases will be found to answer well:

- 1st. year Corn, potatoes or fallow.
- 2d. do Oats.
- 3d. do Clover.
- 4th. do Wheat.

The only objection to this course is, that one grain crop—oats, succeeds another—the corn—but in the cultivation of maize, the land being kept perfectly free from weeds, and well worked between the drills, it is generally in a good state of preparation for the next crop.

Mr. Sands says "there is a peculiar advantage and economy in this system of manuring with grain crops, that should always be taken into consideration in the economy of agriculture." Now I think there is a typographical error in this passage, and that "grain" should have been "green,"* for it is evidently on green crops that Mr. Sands relies for manures, and it is not good husbandry to apply manure with any kind of grain crop, nor can a grain crop be judiciously or profitably used as a manure.

On the subject of seeding so frequently with clover, I have very strong reasons for differing from Mr. Sands. I have seen the evil results of a too frequent repetition of clover, and in my essay on "The Cultivation and Management of Clover," which will appear in the forthcoming volume of the Transactions Michigan State Agricultural Society, I have endeavored to point out the bad effects produced by this system of husbandry.

I agree with Mr. Sands, that manure should not be placed too deep in the ground. I have seen crops derive very little benefit from a heavy dressing of manure, merely because *it was put too deep in the soil and too far away from the roots*. If any person wishes to prove the truth of this statement, by experiments, let him, when planting cabbages in spring, place the manure immediately under and around the roots of one rank of plants, whilst he manages another differently, and puts the manure far below the roots. He will find that a heavier and better crop can be raised by the first system of management; and the results will be the same, when the plan is applied to any other kind of crop.

Subsoiling when combined with thorough draining, is a very good means of increasing the fertility of a soil *without draining*, it is rarely of much use.

W. S. H. Welton, of Grand Rapids, calls attention to his account of a good milk cow, and such facts as he mentions are worth recording for the purpose of directing attention to the vast superiority of a good milker, over a bad one. The latter will consume more fodder than the former, at least I have found such to be the case. Bad milkers are generally inclined to become fat, and are mostly blest with a very good appetite. It costs more to feed an inferior milker, than a good one, and the farmer's loss, in supporting such worthless stock, is sometimes very great.

I recollect having been one of the judges of cattle at an agricultural fair, and on no question did the judges differ so much, as on awarding the prize to the best milch cow, some were for giving it to the cow that produced the greatest quantity of milk, another was in favor of the most approved breed, each matter gave rise to considerable discussion. It sometimes happens that cows which do not belong to any of the improved breeds, are nevertheless, excellent

milkers, and consequently extremely valuable to their owners, and in my opinion, a first class premium should be awarded to the cow which produces the greatest quantity of milk. When cattle possess the superior excellence of high blood and abundant milk, they are invaluable, and such cows as Mr. Welton's, are 'as good as gold.'

As I have been always fond of bees, I will say a word on the Platform Bee Hive, a cut of which appears in your last number. I have seen it at the State Fair and examined it closely, and I think it a very great improvement on the best kind heretofore in use. It bears considerable resemblance to the Nutt Hive, a drawing of which is given in Richardson's popular work, "The Hive and Honey Bee." A little attention to the subject of bee-keeping would very much increase the farmer's profits, and where such an abundant supply of bee-food is to be found in the forests of Michigan, it is a pity it is not rendered available by keeping bees, and attending to them properly. Bees should be protected from the severe frosts of winter by suitable shelter. They should be shaded from the sun's rays in summer. Too much heat will melt the wax, and the combs will fall down in the hive.

A neat hedge of beech or iron wood, should be planted around the apiary, and kept neatly trimmed with the clipping shears. Flowering shrubs, especially of those kinds which bees feed on, should be planted near the hives, they will afford a grateful food in spring, when the bees first come abroad, and if bees are allowed to swarm, it is proper to have low shrubs near the hives on which the swarms can settle. Bees are frequently lost by going up in high trees.

I think the "Platform Bee Hive," is an important improvement, and deserves the attention of every bee-keeper. I would recommend the Patentee to furnish it at a lower price.

A letter dated "Macon, Oct., 1855," without the writer's name, gives an account of a single stool of wheat bearing 87 stalks, and 460 grains. I don't think this can be beaten in Michigan.

In the "English Philosophical Transactions" for 1768, it is recorded, that on the 2d of June, 1766, Mr. C. Wellar, sowed some grains of red wheat, on the 8th of August a single plant was taken up, and divided into 18 parts. These plants having tillered out, were again taken up, about the middle of September and divided. This second division produced 67 plants. They remained through the winter, and another division was made in the spring, producing 500 plants, some of these plants produced 100 ears from a single root. Many of the ears measured 7 inches in length, and contained from 60 to 70 grains. The whole number of ears produced from one grain of wheat was 21,109, yielding 3½ pecks of grain. Such is the productiveness of the wheat plant.

I remain yours, EDWARD MASON.

*It is "grain" in the copy.—Ed

Shanghais.

Some lady in Ohio has made complaint against the whole race of shanghais, and pronounces them good for nothing, calling them "*voracious monsters*," noisy, lazy, and unprofitable. I too, was once of the same mind, and kept clear of the "*hen fever*"—as it was called. My unbelief was cured, however, by the best of all cures—a trial of the "*exotic monsters*."

In August last, an acquaintance remarked: "John has got the greatest lot of chickens I ever saw." Why, said I, how many has he? "How many?" retorted the excited speaker, "why he has got four or five hundred," and added, "it is but a step, let us go to see them." Agreed said I, and over we went to John's yard; and sure enough, there they were, big and little, in every path, under every bush, around the door, and under the sheds, nothing could be seen but the Shanghais. Presently up came John. "How many are there," inquired I. "Don't know, can't tell," said John. "But don't you keep count?" "No," he replied, "I did have one hundred and twenty-five of these big chickens, hatched in April, and of the little ones I have kept no account; I had six that I wintered, and you see the increase." I stared and wondered, my doubts were all removed, and I could only say, "it beats all I ever saw,"—I had the "*hen fever*."

On the first of September the whole household were delighted with the arrival of the Shanghais, a hen with ten chickens just out of the shell, two April pullets and one April rooster, all beauties except the rooster, of a chocolate color, feathered down to the toes. The hen was, and is a model of a mother, careful, patient, quiet. For a month she never went fifty feet, as I think, from the door of the house. She ate, and then took her chickens under her wings, never run off into the wet grass, never scolded, never fretted if the children came near, showed no signs of bad temper, but was in fact a well bred Chinese lady, of the "golden slipper order." The chickens were hardy, gentle and quiet, not given to mischief, but content to eat and be still; all lived but one, which was drowned. They grew, and grew well. If I wished to see them I had only to step to the door and they were sure to be in sight. The pullets grew finely and were almost as quiet as the mother. The rooster made no noise, indeed we all were impatient that no morning crowing delighted our ears, crow he would not, till the month of October was almost out.

On the 28th of October one of the pullets commenced laying and has kept at it daily ever since, one or two days only excepted; about the same time, the old hen commenced weaning her chickens. It was done in her own quiet way, no fighting, no pecking, no running off, and getting upon a high roost and leaving the little ones uncared for. She used great forbearance, and was not hasty in allowing her family to "*think for themselves*" without first giving them lessons in the art of self care,—a short note, a look

seemed to warn the brood and give them notice in the morning that they had permission to walk out and spend an hour alone, while the mother took a solitary walk across the yard or around the house, as if to meditate on the step she was about to take. At night she still took the chickens, now two months old, to her side and brooded them as formerly, coming out with them in the morning and seeing them fed, and then dismissing them for an hour or two, and by the first of November she dismissed them for the day, but still hovered them at night. The next move was to leave them at night but to look after them at times during the day. On the 14th of November the weaning was about ended, and the hen gave manifest indications that she intended to set about other work. She examined boxes, nooks, corners, and all places about the house for a place for a nest;—almost seeming to say, "why don't you fix a good place for me? If you want eggs, make me a nest; come, hurry up your cakes." The hint was taken, a nest was made, and on that day she began laying, still taking care of her chickens by day. Yesterday, the 21st of November, was a cold day, and the daily egg was not forthcoming. To-day she showed some signs of wishing to change her quarters. She went upon the nest and came off, looked about, and came to the wood-house. She was taken up, carried to the nest, and placed on it and left there, where she remained, and in a few minutes the egg was in the proper place. She makes no noise, never cackles nor quarrels.

Now these are facts. My Shanghais have vindicated their character, and sustained their high reputation for good nursing and good laying. NILES.

The Right Spirit in Kent County.

Mr. W. S. H. Welton, the President of the Agricultural Society in Kent county, sends us the following portion of the proceedings of the supervisors, exhibiting a most commendable spirit on the part of the board, and one which we take pleasure in pointing to as worthy of imitation. We have no doubt but that every citizen will feel the effects of this judicious appropriation, while the slight increase in the annual taxes, will hardly be known by any. The county Society is the nucleus around which must gather a great deal of that local feeling which gives importance and weight to the farmers, and it also forms the centre from which must flow much of that spirit which stirs up emulation and a desire to excel. Besides, the county Society can be made the means of bringing improvements within sight of every one; for all cannot go long distances to State fairs.

We publish the report, at Mr. Welton's request, with much pleasure.

The committee to whom have been referred the petition of the officers of the Kent County Agricultural Society, submitted the following:

To the Board of Supervisors of Kent County:

Your committee to whom was referred the matter

of the petition of the Kent County Agricultural Society, beg leave to report,

That having given the subject due consideration, they have arrived at the conclusion, that this Board should accord to the Kent County Agricultural Society the full benefit of the Act under which they have made their application to this Board.

This Society has maintained its organization for seven years, much of the time under adverse circumstances, striving to infuse a spirit amongst the people that should bring into action a more energetic life, by which the arts of Agriculture, Mechanics and Manufactures in all their branches should receive a greater impetus, and one that shall give our country that position which its resources warrant. Cramped in means, the Society has not been able to carry out its great objects as fully as it has desired; and to the public eye it may have seemed to languish without effecting that amount of good it should have done. But its influence has been silently working its way in the minds of the people until they have become earnest for the advancement of the objects had in view by the Society, and which, as they grow, make the people happy and independent, elevating them in all that makes a nation noble and powerful.

The result of the Fairs of the Society have fully exemplified the truth of this. But to be brief in our report, your committee therefore believe that the time has arrived which is most opportune to lend a helping hand, and the sooner bring our county to that position which the public must acknowledge as first in the State, and a position in point of wealth, that all may be proud of—a high Agricultural and Mechanical one.

Your Committee, therefore, recommend the passage of the following resolutions:

Resolved, That this Board of Supervisors appropriate for the benefit and use of the Kent County Agricultural Society, five hundred and seventy-six dollars and thirty-six cents, it being one-tenth of one mill tax on the dollar on the assessment roll of Kent county for the year 1855.

Resolved, That the said sum of \$576.36 shall be expended by the said Agricultural Society, as follows, to wit: A sum not to exceed one half thereof to liquidate the indebtedness of the Society, incurred in the preparation of grounds, &c., for its recent Fair and the premiums awarded thereat. The balance to be applied, as the Society shall select, on a purchase of permanent grounds, to be owned and held by the Society for its legitimate use, or in the purchase of Agricultural, Horticultural, Mechanical, and other suitable books and periodicals to be distributed as premiums at its next annual fair in 1856.

Resolved, That the said \$576.36 shall remain in the Treasury of Kent County in trust for said Agricultural Society, and shall be paid by the Treasurer of Kent County to the Treasurer of the said Agricultural Society or his order, on the order of the Secretary of the Kent County Agricultural Society, countersigned by the President thereof.

Resolved, That it shall be the duty of the Secretary and Treasurer of the said Agricultural Society to report to this Board at its next annual session, the disposition made of this money by the Society, specifying the objects to which the several amounts drawn have been applied; together with such other matter as they may think interesting to the Board.

T. E. WETMORE,
Jno. B. COLTON.

On motion of Mr. Chubb, the Report and Resolutions were adopted unanimously.

On Grinding Grown Wheat.

MESSRS. EDITORS *Michigan Farmer*:—By inserting the following, you may confer a favor on many of your subscribers, and the public generally:

Some five years ago when nearly all the wheat in this state was more or less grown—I purchased a load much worse than usual, had it taken to my mill—my millers found considerable fault, and did not want to grind it. I told them I wished to make an experiment, and wanted them to follow my directions, which was to have it well smutted and cleaned, and when it came round to the hopper, to put one peck of clean dry corn to every bushel of wheat, and grind it all together—not too close, which they did. I then distributed the flour among my neighbors, put some in small sacks and sent it by my teams to the different hotels on the road to Milwaukee, told the men to say to them that it was made from grown wheat, and that I wanted they should try it, and if they could not use it to feed it to the pigs at my expense. When I saw them they wanted more of that grown wheat flour—wanted to know how I could make flour without having the wheat grown, not willing to believe that it was from grown wheat. All, without exception, pronounced it first rate.

I do not think it is quite as good for cakes and pies—but for bread and biscuit I think it fully equal, besides there is some economy in it. Try it and see.

B. A. JENKINS.

Genesee, Wis., Nov. 1855.

Look to your Bees.

Bees, like everything else, should be properly cared for. We knew of several swarms that died during the last winter, with an abundance of honey in the hive, for want of proper ventilation. The past winter was one of unusual mortality, very likely from the same cause; the hive should be properly ventilated. Any hives having holes in the top, or within the chamber for boxes, should have a piece of zinc or tin pierced full of holes like a sieve, placed over the aperture to permit the steam to pass off. The holes in the hive should always be left open. If you have nothing but the old fashioned box hive, raise it from the stand about half an inch upon one side, and keep it in that position during cold weather, by placing under the hive some article to keep it up. This will permit a free circulation of air, and perhaps save your bees. Protect your bees by a house, or by placing over them a shelter; this will prevent them from flying out in warm days, when they often get chilled and cannot return. In such cases the swarms get reduced too small to keep up their natural heat, and consequently die. N.

It is estimated that the wheat harvest in the United States, the past year, amounted to between 168 and 185,000,000 bushels.

The Gilmore Bee Hive.

FRIEND NOBLE:—I herein enclose the report of the Committee of the Kalamazoo County Agricultural Society for 1855, at which place one of Gilmore's patent Bee House and Hives were exhibited by J. Henry, Esq., with six swarms of bees at work. The committee awarded it the first premium. It is as follows:

The committee appointed to examine Gilmore's Patent Bee Hive & House, respectfully report as follows:

Gilmore's patent embodies many principles entirely new to this Committee, and worthy, in their estimation, of a more extended notice than can be embraced in this report. A few of the leading characteristics they would not fail to mention. It reduces the management of bees to a system of economy not heretofore brought to notice. It unites a number of swarms in one great family or community, and provides for the working in any particular hive. The increase may be made to form an entire new colony. They can be made to swarm or not at the entire will of the manager—no loss is sustained as in many other methods by swarms flying away, and it secures the safety of any weak swarm from robbers.

The feeding principle opens a new field in economy of bee culture, whereby the profits are increased much greater than any method heretofore known, as has been fully attested to this committee by many highly respectable persons now using the same.

Therefore your Committee would award as a just compensation for its deserved merits, a premium of not less than three dollars to Jas. Henry Jr., for Bee-hives and House, exhibited with bees working. And also three dollars to John L. Reed, for model Hives and Bee House, containing sixty-four swarms, it being the highest premium awarded any article in this class. And your Committee would take pleasure in recommending this patent to all those desirous of engaging successfully in the management of Bees.

ELISH A. LONDON,
FREEMAN HOPKINS,
H. DALE ADAMS,

Ch'n. Committee.

To F. RANSOM, Esq.,
Pres't Kal. Co. Ag. Soc. }

Mr. J. A. Cook, agent for Gilmore's improved "Patent Bee House," above referred to, showed us a few days since, one of these houses, and we were easily convinced that this was just the thing desired by Apirians, and we most heartily recommend them to all persons concerned in Bees, as being both an economical and desirable article. Mr. JOHN L. REED, of this place, has one of these house with 64 swarms, all in active operation.—*Kal. Gazette.*

To Gilmore's Bee-house and Hives were awarded premiums at the Calhoun, Washtenaw, and Oakland County Fairs. All the honey that was exhibited at six County Fairs in Michigan the past fall, was taken from the Gilmore Hives. As there are a large number of these houses for from three to one hundred hives being put up in all the counties where the plan has been exhibited, we name a few of those now in operation which may be seen at the following places: At A. F. Moon's, *Paw Paw*. Mr. Warner's, near *Paw Paw*, for thirty-six hives. *Kalamazoo*—J. L. Reed, for sixty hives; Wm. P. Barrows, for forty-

eight; J. W. Glover, for eighteen; Doct. F. Hopkins, for six; Levi Krouse, for 6; H. Wells, 13, and 18 others of various sizes. S. P. Wormby and Mr. Martin, *Marshall*; Doct. Bush, *Battle Creek*; Mr. Fitzgerald for 32 hives, and Mr. Ellison for 18 hives, at *Bellvue*; O. Dickinson, for 18; John Feigher, for 18, and J. B. Rasy for 40, at *Vermontville*; L. W. Bodwell, for 6, and T. A. Haviland for 52 hives, at *Ann Arbor*; Lyman Wyard for 52 hives at *Ypsilanti*; Mr. Sherman of *Cooper, Kal. Co.*, for 52 hives; James Benson, of *Schoolcraft*, for 26 hives, and the following gentlemen for from three to eight hives: Joseph Pierce; Asa Brown; Mr. Crooks; Mr. Bishop; Mr. Springer; Mr. Allen; Rev. A. L. Payson. There are now 2214 swarms of bees in the Gilmore house and hives in operation in Michigan. The plan was not introduced until about the first of May, and by one Agent only, who has removed large numbers of swarms from old hives to the Gilmore. I expect to be prepared the ensuing Spring with hives and help to change the bees from old hives to new ones for all those who wish to adopt the plan.

JAMES A. COOK, Windsor, Vt.,

General Agent for the Western and Southern States.

Kalamazoo, Dec. 12, 1855.

"The Little Giant."

A valued subscriber, living in St. Joseph County, in this State, wrote to us, not long since, that immediately upon seeing the advertisement of Scott & Hedges' "Little Giant Corn and Cob Mill" in our November number, he sent to Cincinnati for one, as he had a large crop of corn and wished to grind it to suit himself, independent of grist-mills. We requested that after he had made a trial of it he should give us his opinion of its merits to publish for the benefit of others who might wish to purchase. In a recent letter he says:—

"As regards the Little Giant Corn and Cob Mill, I have, as yet, ground but twenty-five or thirty bushels, but so far as I have used it, it works fully equal to my expectations. I ground seven bushels of meal for a neighbor, within an hour, with my light poney alone. They sifted some of the meal and made batter-cakes, of which I ate to-day, as nice and fine as need be. In fact, it grinds the cob finer, if any thing than the grain, and much finer than the grist mill does. The price of it was \$40 and the freightage cost some six or eight more, but I would not now part with it for twice its price if I could not obtain another. Every stock-grower should have one."

Since this letter was received, we notice that the Editor of the *Constantine Mercury* speaks in terms of praise of the operations of the Little Giant, above spoken of, whose performance he had witnessed. The little fellow is destined to become as notorious as Tom Thumb, and will make fortunes for his owner if not for himself.

Managing Bees.

MR. EDITOR:—I notice in the October number of your paper, an inquiry from, "A Reader of the Farmer," inquiring by way of the *Farmer*, how bees are driven from an old hive, to a new one, and also the best method of managing bees while swarming. Having had an experience of over twenty years in the management of honey bees, and having tried many experiments in order to ascertain the best method of managing bees during the swarming season, and also to ascertain if possible the best method of transferring bees from old hives to new ones, I thought it might not be uninteresting to the "Reader of the Farmer" to learn something of my experience. And I expect that while I state to the public through the *Farmer*, what I believe to be the best method of managing bees during the swarming season, and more especially my method of transferring bees from old hives to new ones, other apiarists may differ with me in regard to what is the best method of transferring bees, for I am aware that there are different ways in which the operation of driving is performed by apiarists, each, alleging that his way is the best. And there are others that condemn the practice of driving bees from an old hive to a new one, perhaps because some inexperienced beekeeper has performed the operation in a bungling manner, thereby destroying the colony. But to the point. In order to transfer a colony of bees from an old hive to a new one, I, in the first place remove the new hive from the bench or beehouse and place the new hive where the old one was taken from; now turn the old hive bottom upwards as near the entrance of the new hive as possible. I put on my bee-dress and woolen gloves, then with a small hammer or stick, I beat the sides of the old hive, and in a few minutes the bees commence their march from the old hive to the new one, generally in 15, or 20 minutes, the most of the bees will leave the hive. I watch attentively for the queen during the operation. If she enters the new hive, the work is accomplished without any danger of the loss of the colony; if I do not discover the queen passing out with the bees, I carefully remove the honey, examining each piece of honey, in order that the queen may be found if she is in the hive with the few remaining bees, for if the queen is destroyed, the whole colony is lost. The operation may be performed with perfect safety by an experienced bee-keeper, and I am of the opinion that bees cannot be kept in good healthy condition without having their combs renewed once in four or five years, either by driving the bees from the old to the new hive, or by using a dividing hive from which only a part of the old combs are removed at a time, thereby avoiding the danger of losing the colony by changing the combs as in the old way of driving all out at once.

I have made a valuable improvement in the divi-

ding bee-hive by constructing a double bee-hive, which will allow a part of the old comb to be withdrawn at a time without the least disturbance to the bees, in which colonies of bees may be multiplied to any desirable extent without swarming.

My manner of managing bees while swarming is as follows viz:

I dig up by the roots a large number of small trees about one inch and a half in diameter, cutting off the roots about four or five feet long, the trunk or body about four feet long. I sharpen the top end and stick them in the ground near my apiary; when the bees swarm, they most invariably cluster on these roots. When the bees have clustered in a body, I in the first place, spread a clean cloth upon a table, raising the front side with wedges. I then remove the root upon which they have clustered, and shake them off gently at the front of the hive, into which they will soon enter. As soon as the most of the bees have entered the hive, I remove them to the place where I intend to have them stand during the season; to prevent their flight to the woods. I have practiced hiving bees in this manner for twenty years, during which time I have not lost a single swarm by flight to the woods. If bees are left where they are hived until evening (as is the practice of many bee-keepers,) they are very liable to leave their hive and flee to some hollow tree. I disapprove of ringing of bells, or blowing of horns, or making any uncommon noise while the bees are swarming, for it is useless. All I want is a clean hive, and a small brush or goose quill to brush them with if they are reluctant in entering the new hive, which they sometimes are, in a very warm day.

In 1834, I lost three swarms in consequence of leaving them standing where I hived them; since then, I have removed them immediately after hiving them, and the result is, I have lost *none in that way since, although I have hived hundreds of swarms.*

C. H. GOULD.

Grand Traverse, Mich., Nov 10.

Birmingham—Smith's Novelty Works.

The modest little village of Birmingham is situated on the Detroit and Milwaukee Railroad, in the town of Bloomfield, Oakland county, about eighteen miles from Detroit. Its location is upon a level piece of land elevated a little above the surrounding farm lands; it is already a place of considerable business. Its location being one of the most pleasant in Oakland county, has already attracted the attention of some of the citizens of the City of the Straits, as a suburban residence, and several good dwellings have been, and are now being erected. It has two churches, several stores and a flouring-mill and a saw-mill in the immediate vicinity. The farming lands around are rich and fertile, and under a high state of cultivation. The citizens do not attempt to outdo Pontiac,

and are too modest to aspire to a city charter, but they certainly deserve much credit for their enterprise and activity in several branches of the mechanic arts, and like its namesake in England, much is done in the manufacture of implements of iron.

The Novelty Works of A. Smith & Son, are on quite an extensive scale, and at their foundry are manufactured large numbers of various kinds of agricultural implements, among which is the well-known Jointer or Subsoil plow, better known as *Uncle Aaron's*, or the Michigan Plow. Mr. Smith the senior, is the inventor of this plow, and has lived to see it come into very general use, and to be universally esteemed, and to Mr. Smith, by the invention of this should be awarded great praise, and his name handed down to posterity as a benefactor. The firm also manufacture various other plows, corn-planters, cast iron rollers, stump screws, cider presses, apple grinder and corn-shellers combined; this is a very desirable article. Their cross-cut sawing machines are something worthy of being brought into general use. With these saws can be sawed from twenty to thirty cords of wood per day, with a reasonable power.

The Messrs Jenks are now erecting a foundry and machine shop, which with the Novelty Works, will be able to manufacture nearly all the agricultural implements required by Oakland county, and counties adjoining. There is at Birmingham the usual variety of machine shops, and the place is growing and will soon be one of considerable importance. N.

One of the Committee's Answer.

EDITOR MICHIGAN FARMER:—An article in the December number of the *Farmer*, signed Abdallah Chief, and endorsed by the editor, seems to require a reply, inasmuch as charges of "gross injustice," prejudice "doings that look queer," and many other epithets are preferred against the Viewing Committee by this rampant Abdallah, because we did not think his horse worthy of a premium—consequently left him as good as we found him, without pointing out his defects and making comparisons which would not only discredit him in the estimation of the Committee, but would also apply to other horses, hence the necessity of simply reporting the result of our deliberations, rather than all of the details which were incidental to it. In Abdallah's first paragraph the Committee are exonerated by forced presumption, "that if the Abdallah Chief was not entitled to the first premium, his owners preferred he should receive none at all." Here is a supposition of being tampered with by the owners of Abdallah. Regarding the preferment of his owners or the owners of any other horses we had nothing to do and cared less. Our duty was to examine horses—not men or their interests—which we endeavored to do to the best of our ability. The first premium was awarded to the chestnut horse. Here, Abdallah expresses himself half-and-half—one

breath granting us a left-hand compliment for our judgment—all the while presuming things which his imagination conjured up—at the other breath finding fault and trying to point out defects in the chestnut, besides instituting insidious comparisons between the Morgan and the Messenger breed, much to the disparagement of the former. Had the Committee said as much to the reverse, there would have been a tempest in a tea-pot suddenly. It may be proper to here remark that the chestnut horse alluded to was awarded the sweep-stake premium at the Society's exhibition the year previous by a competent Committee, and the horse was said to be in as good condition the past fall. Abdallah was, no doubt, then in existence, but we heard no fault found; indeed, it is suspected that he helped grind the same axe. The balance of Abdallah's article compasses a great reach of step and thoughts on various subjects—that ancient corn field enclosure, that little ring, those six feet ridges, and that little trial of speed in that little ring with six feet ridges, disturbs the harmony of his better feelings not a little; and well may they be somewhat ruffled after being heralded long and loud inside two forty, then be beat badly by that old plug Jackson. Then were the spoons, so near within his grasp, unceremoniously wrenched; a clean pedigree and the senses of good Judges "one pile of ruins, all the result of speed and the sports of that little ring, so quietly entered." Who would not feel bad and abuse everybody, after such trials of speed with like results.

With regard to Committee men being required to publish written details of each animal brought forward for their inspection, also, to show the reason why certain ones received a premium, to the exclusion of others, would be imposing a task superfluous and interminate, and this usual and well-known standard by which the merits of horses are measured, is equally fabulous; indeed, there is no published standard that will apply to the case in controversy. The horse for all work is an exception to rules and fine spun theories regarding his breeding, and nine times out of ten he is of no known pedigree.

It is a pleasant pastime for any of them to describe his *beau ideal* of that most noble animal. Thus, it only requires a few borrowed words from them, stating the incidents which called it forth, and the most fastidious are to be satisfied with this sham report. So much for vague description. It is not, however, so easy and pleasant a task for those who are nimble in describing, to select one that will in all respects answer his written description, and in most cases they are at an entire loss, knowing nothing about the business, hence the wide difference in describing a good horse, and training a good horse, that will answer a good description. This latter qualification belongs to the horse-dealer. It is a perfection obtained by long experience. If this be "no standard," or a "crude" one, then have the Committee greatly erred by not

giving Abdallah the premium, which, in our opinion, he was not entitled to and can never get, so long as that excess of white day-light plays around him, and so long as shadow is not taken up for substance. We not only profess to have understood the duties assigned us on the occasion referred to, but also to have acted from perfect honesty of purpose, the editors direct to the contrary notwithstanding. The exhibitors, with barely one exception, were entire strangers to us, so were the balance of the committee with whom we acted, all agreeing to the awards reported, without bias from any quarter. We spent our time and money wholly in the discharge of our duties, during the four days of the Fair, having no other business, and are rewarded by castigation from the *Michigan Farmer*. Verily, it is highly gratifying to act as a Committee-man at a Michigan State Fair!

ONE OF THE COMMITTEE.

December 17th, 1855.

Abdallah Chief.

MR. EDITOR:—Some censure has been cast upon the committee of the State Agricultural Society on horses of all work, on account of their neglecting to notice or award a premium to the above named horse.

The committee certainly have the semblance of an apology for their course in the fact that Abdallah was a new horse, recently introduced into the State, and without a reputation here except upon paper. It is very easy for the jockey to manufacture a paper pedigree, or make pure blood to flow through bogus veins. Deception is not to be implied in this instance.

The committee had no means of judging of the merits of this animal except from outward appearance; this though above mediocrity, was not enough to cast all others in the shade, more especially with such competitors as that beautiful chestnut from Coldwater. It has been intimated that the proprietors would have considered it an unworthy concession to have accepted anything short of the first premium.

It would require considerable credulity to contest the right of way, or claim precedence over that perfectly formed, promptly stepping, stylish Morgan from Coldwater. He has acquired a reputation for speed, and is an older if not a better resident. It would be useless to compare notes. That lofty crest, that noble figure and perfect action left him, in the opinion of the "most skillful connoisseur" head and shoulders above his distinguished rivals.

If there are horses in the State that excel the Abdallah in form and action, the proprietors must fall back upon his superior condensed bone and muscle—that is speed and bottom, to establish his reputation. It is not part of the duties of a committee of the State Agricultural society to give every horse that comes into the State well recommended, a letter of credit, or paper puff. Let the proprietors exhibit his severe wind, and bottom, then he will stand before

the public, not in borrowed garments, but upon his own merits. One exhibition of "two forty" would be worth a cart load of receipts.

It is not the object of this communication to disparage, or doubt the pedigree of the Abdallah, but the writer presumes that the horse possesses all that is claimed for him, only premising that the committee were left in the dark, or at least without sufficient light to judge correctly of the intrinsic merits of the animal.

It is not the province, or policy of the Agricultural society to pamper an unworthy animal by forestalling the public mind in their behalf, because the evil would be perpetuated in the production of a race of worthless colts.

What we want to encourage is the rearing of horses with speed, strength, and beauty combined, in horseflesh that implies utility. Relying exclusively upon pedigree, or the virtues of a long line of ancestors, has been very aptly compared to the potato plant, the best part is under ground. The horse must earn his fame without adventitious aid. In room of receiving credit he must give character to the family, to prove that he is a true scion of a superior stock.

In the absence of and improper motive, the committee have the benefit of a doubt of the impropriety of their action with regard to the Abdallah, so long as the owners rely upon third rate papers obtained in competition with respectable horses. The proprietors have shown a commendable zeal for the improvement of the breed of horses by the introduction of the Abdallah Chief. They must put him upon his haunches, if he succeeds upon the turf, he will stand the severe test of a Michigan committee.

FAIR PLAY.

U. S. AGRICULTURAL SOCIETY.—The fourth annual meeting of the United States Agricultural Society will be held at Washington, D. C., on Wednesday, January 6, 1856.

Business of importance will come before the meeting. Reports from its officers will be submitted, and a new election be made in which it is desirable that every State and Territory should be represented.

Lectures and interesting discussions are expected on subjects pertaining to the objects of the Association, by distinguished scientific and practical agriculturists. The transactions of 1855, containing a full account of the late exhibition at Boston, will be distributed to such members as are present.

The various Agricultural Societies of the country are respectfully requested to send delegates to this meeting; and all gentlemen who are interested in the welfare of American agriculture, who would promote a more cordial spirit of intercourse between the different sections of our land, and who would elevate this most important pursuit to a position of greater usefulness and honor, are also invited to be present on this occasion.

MARSHALL P. WILDER, *President*.

W. S. KING, *Secretary*.

December, 1855.

Horticultural Department.

S. B. NOBLE, EDITOR.

Valedictory.

It is with much regret that I feel myself compelled to announce to the readers of the *Michigan Farmer*, that for want of time to attend to the duties of Editor of the Horticultural Department, to my own satisfaction and the benefit of its patrons, that I must withdraw from that position and leave it to other hands.

The time that I have devoted to this department has been to me time pleasantly spent, and I hope it has proved beneficial to others.

It is my desire that the agricultural publications of the state should take a high stand, and maintain it; in order to accomplish this the Editors must be well informed and give much time to the preparation of the matter they contribute.

My own time being very fully occupied in the agricultural and horticultural operations of the state, but in a different, yet kindred sphere, I find it difficult to devote the time necessary to a full development of the horticultural department of the *Farmer*, without neglecting business in other departments of agricultural operations that require much time and close application. I must, therefore, withdraw my name from the head of the Horticultural Department, but will, as occasion may offer, contribute to its columns.

Mr. S. B. NOBLE, who will hereafter have the charge of the Horticultural Department of the *Farmer*, has long taken a warm interest in rural matters, and having both the time and experience, will render that division of the *Farmer* instructive and deserving attention. He shall have my most cordial co-operation, and I give him a hearty welcome to the chair editorial which my resignation has rendered vacant.

J. C. HOLMES.

Detroit, December, 1885.

The Michigan Nurserymen and Fruit Growers' Association.

This Association will hold its third annual meeting at Jackson, commencing on the second Tuesday evening in January.

Matters relative to fruit and fruit growing, will be discussed by all the members who wish to take part. Those who have attended the former meetings of the association, have found them pleasing and instructive. Will not every nurseryman, gardener and orchardist, in the state, be present at this meeting and participate in the discussions, and the resulting benefits?

Horticulture is an interesting subject to the citizens of our state, therefore, we hope all who can will be present, and contribute to the entertainment by par-

ticipating in the discussion of the following questions, viz:

What is the best mode of cleansing the seeds of the apple, pear, cherry, plum and peach?

Upon what soils, and in what manner should the above varieties be cultivated, in order to produce the best stocks?

What method of pruning trees in the nursery rows should be observed in order to aid in the production of strong, healthy trees?

Is the spring or the autumn the best time for transplanting fruit trees in Michigan?

What success have fruit growers in this State had in the cultivation of the pear upon quince stocks?—Also upon stocks of the thorn? Upon the mountain ash? Upon what soils, and how cultivated?

What variety of the strawberry have members cultivated, and with what success?

What varieties of grape are found to succeed best in open cultivation?

What is the best method of cultivating the grape?

What hedging plants have been cultivated by members, and with what success?

The above questions, together with many others that may be interesting and important to the horticulturists of Michigan, will be discussed. It is hoped that many specimens of fruits will be presented for exhibition and discussion.

Before the close of the session officers for the ensuing year will be elected. H.

Deterioration of Apples.

Our attention has frequently been called to the fact that several varieties of apples, that in the eastern states, and in western New York, are long keepers, and were in this state when the trees first came into bearing, have so far deteriorated that they are matured and go to decay from one to three months earlier than they once did. Whether this is owing to the peculiarities of our climate, or whether it arises from accidental causes, or from the mode of treatment either of the trees in growing, or of the fruit after being gathered, remains to be settled. Whatever may be the cause, the fact is sufficient to arrest the attention of all fruit growers, especially those who contemplate enlarging their orchards or setting new ones. If the Swaar, which formerly kept good till April, or the Newtown pippin, or Russets which remained sound till May and June, are now matured in January and February, some other varieties should be selected to take their place as late keepers. Our apples from trees about twenty-two years old are so far deteriorated that our Russets and Newtowns which formerly kept till June, are now in prime in January and February. Swaars which ought to keep till April, are now matured and gone to decay before the middle of January. Our Rhode Island Greenings which

formerly kept till February, are now, in December, showing signs of decay.

Our Northern Spys, which at the east are called late keepers, are now Dec. 15, at maturity. Our Northern Spy were grown upon a young tree forced into bearing by high cultivation, and bore the past season its first crop. The soil of our orchard is gravelly loam. We have enumerated the above particulars to call attention to the facts. January and February will be the best, and with many the only time to make observations as to the extent of the deterioration. As far as our information extends, the fruit growers in some sections of the northeastern and western portions of the state, make the same complaint.

Apples have already become a staple of Michigan, and if the thousands of trees now growing, supposed to be the latest keepers, prove only to be medium, our markets will be nearly destitute of apples by the first of March, unless different varieties are grown. With us the Newtown pippin has not proved itself what it is recommended to be in other locations; it is three years out of four, scrubby and of a diminutive size.

We do not wish to condemn it. We only advise caution, so that orchardists may not set too freely until it is proved to be adapted to our climate. It may be well calculated for some locations and soils. We advise the same as to the Northern Spy. We consider it in flavor not equal to the Esopus Spitzenburgh, Westfield Seek-no-further, and some other sorts, and if it does not prove with others a later keeper than with us, it is unworthy of cultivation, because we have better varieties at maturity at the same time. The apple crop is of more importance than all our other fruits combined, therefore attention ought to be paid to it in proportion to its value.

Pears.

It is a source of gratification to notice the increased attention paid to the cultivation of pears. A fruit yard without a due proportion of pear trees, is now considered deficient. Yet we think more attention ought to be given to good winter fruit. It is just as easy to raise a good winter pear, as a winter apple; although there is now considerable winter fruit, the quantity ought to be increased a thousand fold. We hope those who have raised the winter pears, will give through the *Farmer*, a list of those varieties which do the best in our climate, and the time of ripening, what kind of soil grown on, or whether on standard trees or dwarfs. There are now hundreds who contemplate setting pear trees next spring, who are comparatively ignorant as to what varieties do best in our climate, and wish to take the opportunity of the comparatively leisure time of the ensuing winter, to ascertain where they can procure such as they want, and make what preparations they can for early operations in the spring. N.

Grape Vines and Pruning.

Although the grape is of as easy cultivation as the apple or peach, a small proportion of the gardens only are graced with even one vine. They require no more time than *should* be bestowed upon a currant bush. They may be trained to a stake, fence, trellis or side of a building; and when properly cared for, one or two vines will supply fruit for a large family.

Procure of some nurseryman of reputation, good healthy, well rooted plants, of one or two year's growth, of good hardy sorts, and where only one or two vines are needed, the Isabella is the best for our climate, when more are to be planted, add the Alexander, Catawba and other hardy kinds. Set them out properly, and mulch them with straw, long manure, saw dust, or chip manure. Vines that are already planted and need pruning, should be pruned in January or February at farthest, selecting the coldest time to do it, and when the ground is frozen hard, when such a time occurs. Cultivators differ as to the best mode of pruning. We prefer to cut off about half of the last year's growth; tie the large branches in a horizontal position to a trellis, and the smaller branches uprightly. If, owing to the warmth of the weather, the vines bleed, sharpen the end, and stick upon it a small potato, and it will usually stop immediately. We have known the sap to run freely in February when the ground was not frozen; therefore embrace the first opportunity to prune all you intend.

You may also improve the present opportunity to prune such vines as you intend to set out in the spring, they will then be ready for transplanting, which should be done early. N.

Mulching Strawberries.

The winter of 1854-'5 was one of unusual severity. We heard a very general complaint that strawberries were winter killed in many locations. We think it is owing not so much to severe cold weather, as to the sudden transition from cold to heat. By sudden freezing and thawing the soil contracts and expands; the roots and vines are affected thereby, and if not destroyed outright they are so much injured that one entire season is required to reinstate them. This may be obviated in a great measure by mulching with spent tan, saw dust or straw, being careful not to put on enough to smother the plants. In the spring when the plants begin to grow, and *not before*, remove a portion of the mulching, leaving the top of each plant uncovered. The time has already come when the *strawberry patch* is considered a necessary appendage to every good garden, and none should be without one sufficiently large to supply the family with a reasonable quantity of a fruit conceded the most healthy and delicious of all others. N.

Protect your herbaceous plants at this season.

Ladies' Department.

The Pine Tree.

BY L.

As hour by hour at day's decline,
I've sat and watched you stately pine,
And seen its pencilled branches lie
So still against the wintry sky,
Or softly waving to and fro
To we come down the falling snow,
I've wished that to my heart were given
The hope that looks alone to heaven.
Then like the pine tree ever-green
Amid the wintry tempests seen,
So calmly might I brave the strife
And rise above the storms of life.
Then soft as on you waving tree
Would fall the snows of age on me,
And birds that chant in early spring
Amid my sheltering boughs would sing,
And winds that through the forests moan
Would sigh to me in gentler tone;
The soft, confiding, whispering breeze
Would pass the leafless forest trees,
And, welcomed to my thrilling breast,
Fold up in weary wings to rest,
So blessed and blessing might I rise
Calm and serenely toward the skies;
So might I be at life's decline
Loved as I love you stately pine.

On a New Farm.

MR. EDITOR:—I am going to begin the new year by asking a favor of you. I am a young housekeeper; George and I have just moved into our new house on a new farm, and neither of us being very much experienced in managing for ourselves, we anticipate some difficulties, both in the fields and in the household. When we lived near mother I could go to her for any information that I wanted; but we were not on a farm then, and the little work I had to do was very different from what I find it here. Being now some ways from neighbors, and too far from parents to depend upon them for instruction, I have been thought me of the *Farmer* which has been a regular visitor at my father's for many years, and from whose pages I have heard my mother say she had learned many useful things. I spoke to George about taking it, and he said, "Certainly; here is the money. send for it if you think it will help us any; we shall need all the light we can get."

And now, having secured the *Farmer*, the favor I have to ask is this: I want the privilege of speaking through its columns occasionally, either to ask information, or to impart to my sister housekeepers any knowledge or hints which I think may be of use to them. I will promise not to write *long* letters, as I perceive that you have little room for such, on account of the space occupied by the men in the discussion of their more important affairs; neither will I trouble you with irrelevant matters, if I understand what are such. My idea of a "Ladies' Department" in such a journal as the *Farmer*, is, that it should bear the same relation to the "Agricultural Department," as the farmer's garden and door-yard do to his wheat and corn-fields. It does not need to be so large, yet it should contain a greater variety, and embrace the ornamental as well as the merely useful;

though even the ornamental, in either place should not be wholly without use. We would not wish our yards sown entirely to hollyhocks or poppies, nor our gardens all planted to cabbages or potatoes. So I think the household department in the *Farmer* should neither be given wholly to recipes for puddings and pies, nor all taken up with articles intended more for amusement than instruction, but a blending of both, such as you have usually given us. I cannot promise which I shall deal most in for the future, if you should allow me a place in your garden, but for the present, and till I get more experience as a writer, and as a housekeeper too, I shall have to confine myself more to matters of fact than fancy, and ask, rather than attempt to give information. What I want advice about just now is this: Our place is, as I have said, entirely new; we have a fine piece of ground, not very large, fenced off in front of the house for a doorway, and another in the rear for a garden. I have been gathering seeds, and engaging shrubs and plants to put in my doorway next spring; but the other day I was talking with George about it, and he says the ground is too new to plant flowers in. It was broken up in the fall, at the same time the garden was to prepare it for spring vegetables, and George says he will have it planted with potatoes which will "bring the ground to," and make it fit to put flowers in another year. He has seen other people do so on new farms; and so have I, but it is not pleasant to think of having only potato vines to look at from my little parlor window all next summer. I want to ask those who ought to know, if such a course is absolutely necessary to tame this wild land, or to "bring it to," as George says. Would you have the yard planted to potatoes, Mr. Editor.

MARY OF THE WOODS.

[No, indeed; we vote the potatoes out of the doorway, and Mary among our contributors in the same breath. We have seen door-yards made into potato fields, and corn-fields, and weed fields too; and kept so year after year; but the men who made them and kept them so were not such men as we imagine "George" to be, for they did not even *take* the *Farmer*, to say nothing about paying for it.

People who settle on new farms are too apt to put off beautifying and ornamenting the grounds about their homes, first for want of time, and secondly for want of inclination; and some who do not know, and will not learn what utility there is in beauty, think all time and labor devoted to its cultivation lost, while others still adhere to the old practice of "bringing the ground to," which is in reality only an excuse to put off till another year what should be done at the first. If the ground is well plowed and dragged in the fall, and then spaded and laid out in the spring, and well pulverized about where the roots and seeds are planted, we assure Mary it will be "tame" enough to make a beginning for her shrubbery, and the sooner

that beginning is made when spring opens, the sooner will she have the prospect of a pleasant view from that little parlor window. Her idea of the Ladies Department, and its object and uses, is very correct. We do not expect to raise great crops of wheat or plant groves of forest trees in this little enclosure. It is the garden of the Farmer somewhat upon the plan of the old-fashioned farm gardens where the gate opened between two little flower-beds, or perhaps clusters of rose bushes or flowering almonds, and then as you went on you came to rows, and beds, ridges, hills and trenches, each devoted to the cultivation of some useful vegetable, while very often around those of the most common sort would be a bordering of pinks or sweet-williams, and here and there on corners a tuft of violets or scented thyme. This, however, is more properly a contribution garden, one which we expect to stock some as Mary is stocking hers, with seeds and shrubs from friends. No matter how homely the plant, if it has a use it will be welcome here. We want some flowers too, for the same reason that Mary does; that we may have something more agreeable than potato vines to look at, a pleasant prospect from the little window of memory in the future.

Woman vs. Females.

Mrs. Hale, in the Lady's Book, makes some very just strictures on the improper use of the word female as applied to woman. She says:

"Where used to discriminate between the sexes the word female is an adjective.

We do not object to the term when used, necessarily, as an adjective; but many, indeed most writers employ the word as a noun, which, when applied to woman, is improper, and sounds unpleasantly, as referring to an animal. To illustrate: almost every newspaper we open, or book we read will have sentences like these: 'A man and two females were seen,' &c. 'A gentleman was walking with a female companion.' 'The females were much alarmed,' &c. Now why in this age of philological research, is such a style of writing tolerated? Why is the adjective, which applies to all female animals, used as a noun designating woman? It is inelegant, as well as well as absurd. Expressed correctly thus: 'A man and and two women,' &c. 'A gentleman and and a lady,' 'The women were alarmed,' &c. who does not see and feel that these last sentences are in better taste, more correct in language, and more definite in meaning? We call on our sex, on woman to use pen and voice to correct the error of language which degrades them by the animal epithet only. The beautiful appellation, *woman*, was given by the first man to distinguish the sexes. Surely, the men of America will not be loth to recognize and restore the true title of those who are the guardians of home and its happiness."

The School House.

. EDITOR:—As the season for the commencement of the "winter schools" has arrived, and others have discussed the management of the pupil, I would like to give my idea of the management of the "old school-house" itself during this season of the year.

I have seen the young group take their seats with rosy cheeks, and eyes sparkling with health, and in a short time appear languid, and often before noon two or three have been dismissed because they said their heads ached and they felt sick. And can the rational man wonder at it? The teacher has permitted the breath of forty or fifty scholars to remain in a small room without ventilating, or in any wise admitting fresh air. When asked to lower a window he replies "the room is not too warm."

The worst wish that I have for such a teacher is that he be obliged to study philosophy a little.

On entering my new school room, the first object of search is for the ventilators, and if this proves in vain, the next is to see if the upper sash of the windows can be lowered, and if not, with the aid of a few borrowed tools, I soon have at least one window on each side that can be let down. These I usually keep lowered an inch or more, thus letting the impure air which rises escape. I believe it to be highly injurious to the intellectual as well as the physical faculties, to be deprived of one of nature's richest gifts, namely, pure unadulterated air, and especially to the young, tender twigs of humankind. But perhaps enough of this.

Yours respectfully,

E. B. CARRIER.

Rice Creek, Calhoun Co., Mich.

We have in type an excellent communication from S. Barent of Jonesville, on the subject of "Common Schools and Teaching," which should have appeared this month, but we have been compelled to leave it over for want of room.

Washing Flannel.

[Somebody sends in pencil marks, without name or date, the following directions for washing flannel and silk, and and also for making butter.]

First, wash your flannel in a suds not very hot, then wash in a suds scalding hot, rinse well, hang out till nearly dry, then smoke over brimstone. Try it; your flannels will be as white and clear as new.

Silk can be cleaned in the same way, except that you wash it but once, and then smoke it over brimstone; it will be as clear as new silk.

To Make Butter that will keep

Have your pans well scalded; skim your milk every morning, except the last milking. Churn every morning in hot weather; in cool weather, every other morning. To every two pounds of butter put one teacup of salt; let it stand one or two hours, then work it over thoroughly and put one ounce of pulverized loaf sugar to the same quantity; work it in well, pack it in a crock and keep it covered air tight. Butter made in this way will keep good a year.

MICHIGAN FARMER.

ROBERT F. JOHNSTONE, EDITOR.

DETROIT, JANUARY, 1856.

Volume XIV.

With the present number commences the Fourteenth volume of the *Michigan Farmer*. When the first of next April is reached, it will be just three years since the present publishers took hold of this periodical with much fear and trembling, and certainly, more in accordance with the wishes and desires of some partial friends, than from any hope that they would find the task they had undertaken an easy one. During the first two years and a half, they have had to labor under many difficulties incident to the business, among which, one of the most prominent was the want of an office over which they could have some control, and be thus secure of punctuality in the issue. Another difficulty which they have to contend with is the want of punctuality in the payment of subscriptions. These in some measure tied our hands, but even over these we have struggled, and while we have made but little pecuniarily, we know from the opinions expressed both by our cotemporaries in this State, as well as in others, and also by comparison, that our journal has steadily progressed in accordance with the times. We have now the command of material and machinery, and the *Farmer* stands in a position to do its own work in good season. To gain this position for the *Farmer*, we have had to assume onerous duties and responsibilities, but should a kind providence favors us with health, and the agricultural community of this State afford us that encouragement which it will be our first object to deserve, we hope to show our friends that their confidence has not been misplaced, and that we too shall continue to progress with the times. It has been and it will be, our earnest and steady design to render the *Michigan Farmer* the exponent of Michigan Agriculturists, and to devote its columns solely to their interests, and we hope to prove this to their entire satisfaction before the close of the year.

To the editors and conductors of the Press throughout the State, we have to render the most sincere and heartfelt thanks for their very many kind notices which they have voluntarily accorded to us during the past year. The only way in which we can reciprocate, is by still endeavoring to deserve them, and by joining with our cotemporaries to assist in developing the advantages which nature has placed within reach of the people of the Peninsular State. To all our subscribers and readers we tender our wishes of a happy new year, and many returns of the season, with fat stock, full barns, and health to enjoy them.

R. F. JOHNSTONE.
W. S. DUNCKLEE.

Our Horticultural Department.

It will be seen by the valedictory notice at the head of the Horticultural department, that Mr. J. C. Holmes withdraws from it. This withdrawal is not from choice of either himself or of us; but from the fact that the multifarious duties imposed upon him during the last year has left him no time to attend to it satisfactorily to himself. These duties to which we refer, are intimately connected with the progress of agriculture in Michigan. During the past year the act to endow an agricultural college, has gone into effect, and has devolved new and important duties upon the State Agricultural Society. Much of the actual labor connected with these duties it has fallen to Mr. Holmes to perform; and in some cases the executive committee have directed him to make examinations, and to draw up reports connected with their official action as the body to whom was committed the responsibility of the success of the proposed institution, which required time, practical examination and study. This addition to the cares and responsibilities connected with his position as Secretary of the State Society, has interfered, wholly unexpectedly to himself and us, with his own desire and ours that he should remain in charge of the Horticultural Department of the *Farmer*. During the coming year, his time and attention, it is probable, will be still more fully occupied by calls upon them to aid in furthering the growth of the educational institution now in preparation at Lansing; he therefore withdraws to render himself still more useful to the cause of Agriculture and Horticulture in Michigan.

Mr. S. B. Noble of Ann Arbor, who is well known as a writer for the *Farmer*, and whose sound practical observations on fruit and fruit trees are read with satisfaction, has resumed the charge of that department, and will for the future be responsible that it does not decrease in interest or instructiveness to all those who are paying attention to the cultivation of fruit and vegetables, the planting of orchards, or the laying out of gardens. Mr. Noble has had a very long experience as an orchardist, in this State, and his opportunities of noting how trees and fruits are affected when brought from other localities, have been extensive, especially while he has been connected with the *Farmer* since it has been under our charge. In the present number will be found some suggestive remarks on the subject of changes in apples, which will be read with interest.

It will be seen by Mr. Mason's letter, that reference is made to an article in our last number, about the produce of a single kernel of wheat. Our correspondent's name was in its place when the form went to press, but by some accident, the type got out of place so that it did not show. We believe it was Israel Pennington.

The Old Year and the New.


Address to the Subscribers and Friends of the Michigan Farmer.

Readers and Subscribers! a way—good and true,
Health and benediction, the *Farmer* sends to you,
The number on our eve, and the ever-changing day
Remind us that with swift-foot, a year has passed away;
A year of lights and shadows, a year of many tears
For friends who have departed from mortal cares and fears.
Have you felt sad bereavement? we mingle in your grief,
And send you words of comfort to minister relief;
Give not unto your sorrows a wide unhounded scope,
But listen to the soothing of the blessed angel—Hope,
Through clouds of gloom and sadness, her pleasant tones we hear,
She tells of good times coming and happy seasons near.

Readers and subscribers! banish thoughts of woe,
This is an age of progress, and "onward" we must go.
We claim your kind assistance; let your love for us appear,
Come! aid us to be useful in the approaching year,
Increase of circulation upon your aid depends;
Go! canvass for the *Farmer* among your rural friends,
And tell them that as ever, its pages will be found
A treasury of knowledge for the tillers of the ground.
Go on! extend your labors through regions far and wide,
Till every Western Homestead be carefully supplied.
Come, get a sheet of paper, take up your valued pens,
And send us new subscribers, by twen'ties and by tens;
We'll thank you for your kindness, when the great work is done
So send us number fifty, or send us number one
And say what you've been doing, in garden or in field,
That the rich mines of experience, their precious gems may yield,
Assisted by your counsel, and guided by your skill
O! who could fear reverses, or dream of coming ill!

Readers and subscribers! ever kind and true,
How trifling is a dollar to people such as you?
Yet who each small subscription is regularly paid,
It helps us just to meet our bills and carry on our trade;
So send us in the money, by plank road and by rail,
By schooner and by steamer, by messenger or mail.
We'll give you better value than rubies, pearls or gold,
Sometimes it will be fifty, sometimes an hundred fold.
We'll publish a new system of tilling land for wheat,
And you will be astonished at the produce being so great,
And if you take our counsel in managing manure,
And cropping in rotation your fields cannot be poor;
Your turnips and potatoes will grow to such a size,
That golden California can't bear away the "prize."
Your cattle and your corn will yield you more and more,
Till the teeming Horn of Plenty, be fairly flowing o'er.


Readers and subscribers! the earth's wealth within your reach,
If you carry into practice the precepts which we teach,
Of planting—grafting—pruning, and trailing up of trees,
Of laying out a garden, and the management of bees,
Of horses and of cattle, of raising sheep and swine,
We have many things to tell you, if to profit you incline.
Your peaches, apples, quinces, currants, plums and pears,
Will flourish in proportion to the rest of your affairs;
Festoons of fragrant climbers, around your towers! all twine,
And rich will be the clusters upon the spreading vine;
The flowers will be more brilliant, the fields a darker green,
And everywhere improvement, and beauty will be seen,
Thus good things quite unnumbered, and blessings without end
Will crowd around the homestead, where dwells the *Farmer's* friend.
Readers and subscribers! receive our kind adieu,
Health and benediction, the *Farmer* sends to you. M.

 We call the attention of readers to the able article of H. R. Schetterly, of Grand Traverse, on the motion of sap in growing vegetables. Mr. Schetterly is one of the ablest students in natural philosophy we have; and is besides a sound practical writer.


With the present number we commence a series of articles from the pen of Mr. Warren Isham, who has

engaged to write for the *Farmer* during the year, a series of articles on several subjects connected with his travels. Mr. Isham has not yet given up his idea of publishing another work detailing his observations during his residence in Egypt; but he has been delayed by the weakness of his eyes. We are sure that numbers of his old friends will be pleased to read his account of the farming capacities of the upper peninsula, in the present number of the *Michigan Farmer*; and that they will be glad to shake hands with him once more.

BEES AND BEE HIVES.—We give place to a communication from Mr. James A. Cook, relative to the Gilmore patent bee house, which has been promised to us for some time. We have many inquiries as to this mode of keeping bees, and now all that we can say is to refer our inquirers to the communication of Mr. Cook, who points out where the houses can be seen and examined with the bees at work in them. What we have seen of these houses and heard from the most experienced bee-keepers has impressed us very favorably with its merits. Mr. Moon, of Paw Paw, has promised us the results of his experience during the past summer with one of these houses, for next month.

 We recently had a letter from L. G. Morris, Esq., of Mount Fordham, in answer to a request, which we made through a friend, that he would make arrangements to exhibit some of his stock at our next fair. In this letter Mr. Morris announces his intention of not exhibiting any of his stock for some years at least, intending to confine himself solely to keeping his animals in good breeding condition, a state which preparation for the fairs tends to impair. Mr. M. will probably visit our state for the first time during the season of the next fair. A gentleman of this city, who has recently had a most favorable opportunity of seeing the stock of Mr. Morris, at his residence, has promised us a description of his visit, for the next number of the *Farmer*.

WOODWARD'S CORN PLANTER.—We take pleasure in calling attention at this early day to the advertisement of this celebrated corn planter, which for exactitude of work has not yet been excelled by any invention offered in the market. Mr. Andrews, of Pontiac, the manufacturer and agent for this State, appends the certificates of a number of farmers who have tried these machines. We sent one a year and a half ago, to J. W. Dickinson, of Hillsdale, who has informed us that it worked to a great nicety and was very perfect in its mode of working. He found it of great assistance.

 **THE BIRMINGHAM NOVELTY WORKS.**—It will be seen by reference to the advertisement, that A. Smith and Son continue to carry on their iron works at Birmingham, and are manufacturing superior cross cut sawing machines, and horse-powers, as well as all kinds of farm castings.

Chess—A Proposition.

EDITOR FARMER:—Sir, in the September number of the *Farmer*, page 262, over the signature of W. A., I made a proposition, by the way of suggesting to my anti-chess friends to offer premiums to any one who will produce chess from wheat, and have the matter settled for or against transmutation, by next harvest.

But it appears my anti-chess friends have all backed out and decline backing up their opinions with \$25 each, to any one that can and will produce chess from wheat, proves to my mind that they have little or no faith in their written statements against transmutation. If the anti-chess gentlemen know that wheat will not turn to chess, where is the risk of offering small premiums to test and settle this dispute? But they appear to be unwilling to prove their faith by their works.

Filling columns of the *Farmer* with articles for or against transmutation, never will decide the dispute. The question is, can nature or art produce chess from wheat? Facts only can be arrived at by close observation and experiments.

Resorting to analogies and indulging obtuse speculations in this case, proves nothing and has no bearing on the subject.

In making these remarks, my object is to urge the decision of this question and put it at rest, and not for the purpose of provoking discussion.

WM. ANDERSON.

Ann Arbor, Dec. 10th, 1855.

[In the above letter there are some very good suggestions, and therefore we insert it. We agree with our friend Anderson, that filling our columns with opinions or analogies, will not alter the facts, though there is no way to make known facts or observations, that they may be proved right or wrong, except by publishing them. For this reason we opened our columns last season to the chess question, with a view to elicit facts; but some of our correspondents seemed to think that their own opinions were of more importance than any mere facts could be, and the discussion degenerated, in some instances, into idle comparisons and proposals, and sometimes mere personalities. After giving to nearly all a fair hearing, we closed the matter by suggesting that as all were willing to admit that chess was a worthless plant, and wheat was a highly valuable one, that the disputants should exert their ingenuity and abilities in discovering how chess could be turned into wheat, or how it could be made to grow wheat. As this discovery would be the means of saving many thousands of bushels of wheat now used for seed, it would be sure not only to immortalize the discoverer, but also to enrich him, we again call attention to our suggestion. We will be willing to subscribe hundreds towards rewarding the discoverer, and till the subject is taken up with that design, we must be excused if we de-

cline to publish chess articles, while there are so many more useful matters to be discussed. Not that we shall refuse room for any new facts or useful information in relation to the chess plant, or its effect upon wheat, but all discussion based upon mere theory.—Ed.]

In the present number, it will be noticed that we insert two communications in answer to the article signed "Abdallah chief," in the last number. One of them purports to be from a member of the committee, of whose action, the writer in the December number complained, who imputes to us "castigation" of the members. Such imputation is quite unjust. When complaints are made with regard to the action of the committees of the state society itself, we have always held that our columns should be open for the criticism of such action, where it was done in a proper and dispassionate manner, and with honest motives. It was shown to us by ample testimony, at least on one side, that a charge of partiality and injustice, or else of oversight, would lie very strongly against the committee who decided upon the merits of the horses for all work; and that parties, who had, with a praiseworthy public spirit, spent their money and time in doing something towards improving the quality of the horses of the state, might claim with much appearance of truth on their side, that they had not been fairly dealt by. We could not exclude them from our columns; nor was it right, where the very vitality and essence of usefulness of the state society, as well as its character, were touched, that we should ignore the subject, and allow it to be passed over in silence. We judged it best to open up the whole subject, and give both sides a full and fair opportunity to be heard; honestly believing that such a course would result most beneficially to the Society, and perhaps be the means of suggesting such changes and improvements as would render the society less amenable to charges of injustice. Such at least was our object in calling attention to the subject, and certainly no desire to "castigate," had the least influence over us. So far as regards the horse himself, he is now, and has been held ready at a moment's notice, to compete with those which were preferred before him, either in a trial of speed or bottom, so that there can be no dispute upon that head. But we would ask "one of the committee," if it was not strange that all the animals shown by the parties owning "Abdallah Chief," should be passed over in silence, when it is notorious that they exhibited the largest, and fastest mare in the State, as well as some other stock of very superior merits. It is this point in the controversy which is not met by "one of the committee," and here lies one of the difficulties, which we think, should be got rid of, either by a division of the labor of viewing or by some other mode at our State Fairs. As a general rule, the committees have too much to do; especially those upon stock.

Among our most valuable exchanges the Pennsylvania *Farm Journal* holds a high place. We perceive that it has had its difficulties, but now it is beginning to get over them. Mr. Darlington, the editor for the past year retires, and is succeeded by DAVID A. WELLS, a gentleman extensively known as the editor of the Year Book of Scientific Discovery. We part with Mr. Darlington with regret; he was an agreeable and judicious writer. The new editor however, brings to the journal, much scientific and practical ability, and the publishers, in employing him, have certainly given the farmers of Pennsylvania an earnest manifestation of their design to make the *Farm Journal* worthy of liberal support.

THE NEW JERSEY FARMER.—We have neglected to notice this new journal which is the first attempt to start an agricultural periodical within the limits and for the purpose of promoting the interests of the farmers of New Jersey. The number already received, exhibits ability on the part of the editor and publishers. It is edited by Orrin Pharo, Esq., assisted by Ezekiel Combs and David Pettit. The publishers are Orrin Pharo and J. W. Bartleson. It is issued at Freehold, N. J.

THE VETERINARY JOURNAL.—This monthly is edited by Dr. Dadd, author of the Horse Doctor, Cattle Doctor, and a veterinary practitioner of much skill. It is published at Boston, Mass., by S. M. Thompson, and the price is \$1.00 per year in advance. It is devoted to veterinary practice and surgery, and the breeding and rearing of stock. The name of the editor is a guarantee of its value.

THE HOME JOURNAL.—This excellent weekly family paper will commence its new volume on the 5th of January. It will contain during the year a new work from the pen of N. P. Willis. The Home Journal is conducted by N. P. Willis and Geo. P. Morris, and is certainly one of the best and most original of its class of family papers. Two dollars per annum.

MICHIGAN JOURNAL OF EDUCATION.—This valuable assistant to teachers and educators of youth, makes its appearance promptly at the beginning of each month. It contains from 32 to 48 pages monthly, and its terms are such as to place it within the reach of all, and especially of teachers, to whose interests it is particularly devoted. Edited by J. M. Gregory, Detroit. \$1. per annum, in advance.

We learn that Mr. J. W. Howe, of Oakland, has purchased several head of Devon cattle from Harvey Eggleton, of Moscow and Hillsdale County. Mr. Eggleton has taken several premiums on his Devon stock at the late State Fairs.

JOHNSTON'S INSTRUCTIONS FOR THE ANALYSIS OF SOILS.—This little work by the late Professor Johnston, is a most useful one; and it has been got up in a very neat style by S. B. Shaw, of Cleveland, who has recently republished it.

The "Washtenaw County Fair" should have appeared in the November number, but was received too late for that, and was crowded out of the December number by the Address and the Index. We publish it this month at the request of the Secretary of Washtenaw County Society.

We think that the corn which E. B. C. inquires about, is named "Stowell's Evergreen," a good variety, which answers the description.

Markets.

The tendency of the markets during the past month has been downwards, and the decline in prices both here and in the eastern ports has been considerable. There does not appear to be any reason for the decline beyond the falling off in the shipping demand and the full supply which the last month of fall and canal navigation had caused. The latest steamers from Europe have not brought any intelligence which was encouraging to buyers and exporters so that the demand has fallen off at a time when the market was full. This fact may render the low prices of breadstuffs not a settled fact, and cause them to vary some for the better within the next month. The Canada Railway, with all its increased number of engines, and freight cars, is not able to transport the large quantities of freight that offer, and consequently it is much choked up at this end of the line. The market is dull here, for buyers will not now offer more than \$6.50 for the common kinds of flour, and for extra not over \$7.80 to \$8.00, a given for single barrels. In New York fancy Michigan is quoted at \$8 to \$8.50. Buckwheat flour is worth \$3.50 per hundred. Wheat has fallen off 20 to 30 cents per bushel, and some of the farmers who had their wheat in the city, have refused to sell, and have taken their wheat home again to their granaries, to wait for a change. Good first rate wheat is now worth about \$1.50 per bushel, and the range of price is downward to \$1.25. Some small cargoes of Canadian have been purchased at \$1.00. The quantity now ready for market in this state and other to the west is very large. Corn sells at 68 to 70 cents. Oats are slow of sale at 37½ cents per bushel. Mess pork is now worth \$8.50. Hogs are selling in our market at \$6.25 to \$6.50 per hundred. Parties are not willing to purchase at this rate, as the Chicago price is nearly \$1.00 per 100 less. Beef cattle are selling at \$2.50 to \$3.00 per 100 live weight, and dressed at \$1.50 to \$3.00 per 100. Veal sells at 10 cents per lb. Butter is steady at 22 to 25 cents per roll. Cheese of good quality brings 13 to 14 cents. Poultry is now selling readily in market at 37½ cents per pair for chickens. Turkeys at 12½ cents per pound.

We cannot say whether the price of hogs will be maintained here or not. There would be a large quantity packed here; but as prices now range, pickers are sending their orders to Chicago, where they get the pork packed at \$2 per bushel, less than it would cost here. Numerous droves of hogs are passing every day from the west over the Michigan Central and Canada railroads, and they all seem to be composed of animals of large size and in first rate order, these hogs of course, go forward to supply the packing establishments at the east.

TO AGRICULTURAL & HORTICULTURAL SOCIETIES.

WE WOULD particularly invite the attention of those Societies who are about to make up their PREMIUM LIST for 1855, to our large stock of Agricultural Books, which are peculiarly adapted for Premiums.

The awarding of Agricultural Books is the place of small Money Premiums, has been extensively adopted, and has given the highest satisfaction.

ADVANTAGES OF THIS PLAN.

It promotes the dissemination of much needed information among Farmers.

It combines the advantages of a Diploma with a Premium of intrinsic value.

It substitutes a permanent and expressive Token of Honor for the Plintance which is frequently humiliated to the recipient.

It avoids the fostering of a mercenary spirit among Competitors, and better comports with the dignity of an honorable emulation between Friends and Neighbors.

We will take pleasure in sending, when requested, a Catalogue of our Publications which we consider most appropriate for the use of Agricultural Societies for Premiums, on which a liberal discount will be given.

C. M. SAXTON & CO.

Agricultural Book Publishers, 140 Fulton street, N. Y.

INDEMNITY TO MILLIONS. WESTERN FARMERS' MUTUAL INSURANCE CO.

[Located at Batavia, Genesee County, N. Y., in 1844.]

INCORPORATED by the Legislature of New York, April 23d 1864 by a two thirds vote. This Company will not insure anything except what is strictly Farming Property.

It insures only in the States of New York, Pennsylvania, Ohio, and Michigan. It also insures in other good, reliable and safe Companies. Agents of Hartford, Connecticut; Empire Union Springs, Cayuga Co., N. Y., and the Farmer's Union Insurance Company, Athens Bradford County, Pa. Special attention given to Insurance of Farm Property, Dwellings and Out Buildings. It insures such buildings or contents, in a very favorable manner, for one, two, three, four or five years. I am also agent for the Michigan Farmer and other papers and books of useful and enterprising knowledge.

P. O. Address—Darien Centre, N. Y.; Erie, Pa.; Cleveland, O.; Pontiac, Pine Lake, and Birmingham, Mich.

Jan 56-57

E. M. STICKNEY, Travelling Agent.

DEVON BULLS FOR SALE.

I HAVE two superior animals, possessing the best blood in this country, for sale; one is a yearling past, the other was calved in April last. Persons wishing to improve their stock, will not be disappointed in the purchase of these animals.

Please address me at Burr Oak, Michigan.

Jan 56-57

CHAS. BETTS.

Meteorological.

REVIEW OF WEATHER FOR NOVEMBER, 1855.

BY I. WOOD: UFF, ANN ARBOR.

Thermometer at.....7 A. M.	2 P. M.	9 P. M.
Highest temperature.....57° (6th)	64° (15th)	62° (15th)
Lowest do.....18 (29th)	58 (21st)	22 (9th)
Average.....35.1	44.9	38.2
Monthly mean.....	40.1	

MONTHLY VARIATIONS.

Greatest daily mean.....	58.6° (15th)
Least.....	23.3° (29th)
Greatest daily range.....	24.° (29th)
Clear days.....	2.° (29th)
Part Clear.....	11
Cloudy days.....	17
Days on which rain fell.....	12
Total amount of rain.....	5.398

WINDS.

W., 2 days; N. E., 1 day; E. 1 day; S. 2 days; S. W., 8 days; N. W. 4 days; N. E., 2 days; S. E., 8 days.

REMARKS

The weather of this month has been warm and wet, the temperature of the first fifteen days, especially, being considerably above the normal mean. The total amount of precipitation is nearly twice the average for November. The last two weeks of the month were very changeable, the barometer oscillating every few days accompanied by violent winds. The maximum of the Barometer 29.54, occurred on the 9th, and the minimum 23.55 on the 19th. The severe storm of the season occurred on the 11th and 12th when nearly three inches of water reached the ground. There were a few light snow squalls during the month, and lightning and thunder on the 16th.

POLAND OATS.

THE SUBSCRIBER will be prepared to answer orders for the above variety of Oats, as of the first of January. They will be delivered at the Depot at Kalamazoo, for \$1.50 per bushel, and 25 cents for each bag. Orders containing directions where to send to, must be written in plain, and prominent in-rem-due points between places of forwarding and destination given, if beyond the State. Kalamazoo, Mich., Dec. 12, 1855

Jan 5-18

MOSES KINGSLEY.

THE BIRMINGHAM

Novelty Iron Works!

Are manufacturing and keeping constantly on hand A. Smith & Son's improved cross cut saw mills for sawing wood from the log, single bolts, &c. These mills are simpler, cheaper, and far better than any other mill now in use for the purpose desired. The saw runs straight across the log and cuts both ways; it bears a quick motion and cuts very fast. Two horses are sufficient to drive the saw 150 revolutions per minute with our Horse Powers.

Price of Mills with saw to suit, \$40.00; with Carriage Ways, \$15.00.

We also manufacture two or four Horse Powers that are calculated for our Mills, and is easily adapted to drive all kinds of machinery such as Threshing Machines, Buzz Saws, Portable Grist Mills, &c., &c.

These Powers we have improved, and have made them stronger than we first made them; they are now sufficient for four horses. Price, \$55.00

We also manufacture ciphers: a kind of machinery and castings of all kinds to order.

Our terms are cash, at ten per cent. less than we would sell if we gave credit.

All orders addressed to A. Smith & Son, Birmingham, Mich., will meet prompt attention.

(Jan 5)

A. SMITH & SON.

"GET THE BEST."

WEBSTER'S QUARTO DICTIONARY

WHAT more essential to every family, counting room, student, and indeed every one who would know the right use of language—the meaning, orthography, and pronunciation of words, than a good English Dictionary?—of daily necessity and permanent value. Webster's Unabridged is now the recognized Standard, "constantly cited and relied on in our Courts of Justice, in our legislative bodies, and in public discussions, as entirely conclusive," says Hon. John C. Spencer:

"Can I make a better investment?"

Published by G. & C. MERRIAM, Springfield, Mass.,—sold by all Booksellers in Detroit, and elsewhere. Also, WEBSTER'S School Dictionary.

Jan 6-18

NEW PATENT

CORN PLANTER

THE above implement has been thoroughly tested and pronounced the best now in use in any part of the world. The planter was exhibited for competition at the great trial of Agricultural Implements at Geneva, N. Y., July, 1852, and was awarded the first premium of \$10.00 and a diploma, and gave universal satisfaction. In 1853 it was awarded the first premium at the World's Fair in New York. Its superiority over other planters consists in its doing the ground and pulverizing it before it deposits the seed. Then it deposits ashes, plaster, lime, bone dust, or any kind of fine dry manure with the seeds in any desired quantity, and at the same time covers it with fine earth to an equal depth. It is adapted to most all kinds of seed except potatoes. One acre of ground can be planted with it in one hour. Eight acres is an ordinary day's work for a man, boy and horse. Where corn is planted with the planter, it can be cultivated through the season in the most perfect manner, with right management, for the price of one day's work of a man, boy and horse per acre with the Corn Planter.

The said implements will be furnished to order, to any person in the State of Michigan, warranted to work well, if properly managed, by the subscriber, who owns the right in the State of Michigan. Price, Twenty dollars.

This Corn Planter was awarded the first premium at the last Michigan State fair, and a diploma was awarded it at the last fair.

JAMES ANDREWS.

AGENTS FOR PLANTERS.—Geo. W. Osborn, Ypsilanti; G. W. Platt Niles; D. B. & G. C. Burnham, Battle Creek; Moses Rogers, Ann Arbor; J. W. Hulm, Jackson; Cook & Thomas, Kalamazoo.

CERTIFICATES.

We, the subscriber, have used Woodard's Improved Corn Planter, manufactured by James Andrews, of Pontiac, from one to three years, and most cheerfully say that it surpasses all planters we have seen in operation;—that one man, boy and horse can plant from eight to fourteen acres per day with ordinary labor, and cover the seed with moist earth, and do it better than it can be done by hand, and the ear does not dry up in dry seasons on sandy land as when planted with the hoe. It smoothes the ground and deposits the seed on an even surface and in a line, in hills or in drills. We can cultivate corn with less labor than when planted with the hoe; it waters the corn in the hill. More and larger ears will be produced and it will be much easier husked. It drops lime, plaster and ashes, in any desired quantity. One day's labor with one man, boy and horse, will mature one acre to a good and perfect tillage, with proper management.

C. D. Woodcott.....	Farmington
Elstad Smith.....	West Bloomfield
Joshua Simms.....	Livonia
Wheeler Smith.....	Farmington
A. C. Walker.....	Farmington
G. H. Murray.....	Farmington
B. Wixon.....	Farmington
Moses Smith.....	Hawley
Wm. Young.....	Hawley
C. C. Wald.....	Pontiac
J. C. Morris.....	East Bloomfield
Theodore Flower.....	Pontiac
Henry Walburn.....	Pontiac
Wm. McCullough.....	Milford
Samuel Foster.....	Ann Arbor
St. Clair Mill.....	Ann Arbor
St. Clair Bean.....	Jackson
Cook and Thomas.....	Kalamazoo

We hereby certify that we have used Woodard's Improved Seed Planter, manufactured by James Andrews, of Pontiac, from one to three years. I and my neighbors planted eighty acres of corn last spring. I can safely say that on dry land, my corn yielded from five to twelve bushels of corn per acre more than my neighbors did that planted the usual way with the hoe. My corn did not suffer with the drought as my neighbors did, consequently my corn did not dry up before ripening as was the case last year, and in 1853. I can plant from eight to ten acres per day with one man and horse, and plant it better than it can be planted with the hoe. The corn will come up even, and in consequence of the seed being deposited on a smooth surface and the corn sown in the hill. I am satisfied of its being one of the greatest improvements in the culture of growing corn that has ever been introduced in Michigan. I can plant and till my corn, (say when the ground has been properly fitted to receive the seed,) within the amount of one day's labor spent with one man, boy and horse, per acre, to mature the crop, and make good and perfect tillage.

Joseph P. Martin.....	Ypsilanti
Henry Birge.....	Pontiac
Daniel Whitfield.....	West Bloomfield
W. Randall.....	Waterford

Mr. Andrews, Sir:—Your Corn planter which you sent me, works well. Corn comes up well. Have planted 80 acres; can plant 14 acres per day, and do it better than by hand. JAMES CORNELL, Battle Creek, June 30, 1854. Jan 6-18

FOR SALE.

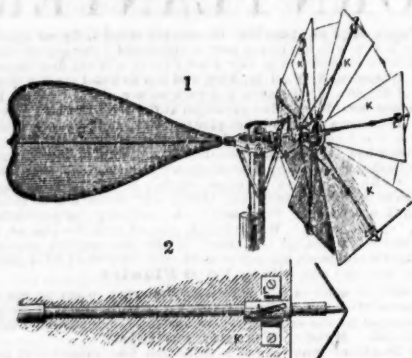
TEN RED DUTCH COWS—FIVE HEIFER CALVES
—AND ONE BULL CALF—

Sturgis, Michigan, Nov. 19th, 1855.

GEO. CARMAN.

21.

NEW HORSE-POWER For Farmers and Mechanics!



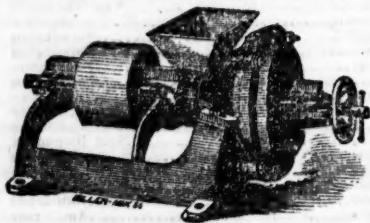
VERMONT WIND-MILL.

Blow winds and crack your cheeks; rage, blow.—*King Lear*.

Wind is at once powerful, inexpressive, and blows everywhere. Just the thing for farmers and mechanics; just the thing for a thousand uses; to grind grain, paint, apples; to turn a hoe, grind stones, scour, polish, cut, saw, in the high lofts of buildings, over city and country, on mountains, in villages, and on prairie. To work on marble, cut slate, straw, thresh grain, and pump water for railroad stations, for stock, for household use, fountains, ponds &c., to drain land, and to do the work of millions of mules everywhere. The VERMONT WIND-MILL will do all this and more. It will adjust its own sails to the wind, is simple, strong, cheap and durable, beautiful in theory, certain in action. Manufactured by the Inventor's Manufacturing Company.

AGENTS WANTED for the sale of this new motive power. TOWN, COUNTY, and STATE rights for sale. Address FOWLER & WELLS 808 Broadway, New York. Jan. 21

TO FARMERS, MILLERS & LUMBERMEN.



FIFTY-SEVEN PREMIUMS

At the World's Fair, London, the American Institute, Michigan State Fair, and other Societies, have BEEN AWARDED TO

CHARLES ROSS' PATENT CONICAL

BURR-STONE MILLS,

As the most perfect Grinding Mills ever offered to the public. Either for Farmers' use by Horse Power, for flouring and re-grinding middlings and other offals in large flouring mills, they excel all other kinds of mills, giving a larger yield and a better flour, having no oscillating motion, and easily kept in good face; and are the only mill well adapted to the unsteady motion of saw-mills, for meal, Graham flour, or feed grinding. They are a great saving in Power and Investment in building mills. The factory prices are \$75, \$100, \$140, \$170, \$200, and \$300, and freight to the place of delivery. For sale by M. J. COOK, near the Post Office, No. 19 Griswold street, opposite Merchants' Exchange. Also, at Penfield's, Snow's and Cargill's, Woodward Avenue. To be seen at WALTER CHESTER'S Warehouse, on the Dock, near the A. C. R. R. depot. To be found in operation in this city, and various parts of the State and country. Descriptive circular sent, by a dressing

M. J. COOK, Agent, Detroit.
N. B.—An additional Premium and Diploma were awarded on these Mills at the Michigan State Fair of 1855, and at the New York State Fair of 1856; the highest Premium was awarded on Flour manufactured by these Mills, though amid powerful and exciting competition.

RAIL ROAD Horse Powers, Threshers and separators, Saw Mills, Straw Cutters, always on hand.
[17-57] D. O. & W. S. PENFIELD.

MARSHALL ADVERTISEMENTS.

C. B. TURNER,

MARSHALL,.....MICHIGAN.
MANUFACTURER OF

Butter, Soda and Boston Crackers,

And wholesale dealer in Confectionery, Cider, Vinegar, Dry Groceries, &c.
[oct-17]

J. T. VERNER, JR.,

—DEALER IN—

SHELF AND HEAVY HARDWARE,

Copper, Tin and Sheet Iron Ware.

Mechanic's tools and farming implements. Stoves of all kinds.
[oct-17] MARSHALL, MICHIGAN.

KALAMAZOO ADVERTISEMENTS.

POTTER, GALE & PARSONS,

Wholesale and Retail

—DEALERS IN—

Heavy and Light Hardware, Agricultural and Horticultural Implements.

Agents for

Ketchum's Mowing Machine.
Manny's Mowing and Reaping Machine.
Seymour and Morgan's Self-Raking Machine.
Fairbanks' Platform and counter scales.
J. M. B. Davidson's Fire King safes.

'55jyt

KALAMAZOO, MICHIGAN

CRITTENDEN & Co

Manufacturers of Carriages, Pleasure Wagons AND SLEIGHS,

KEEP constantly on hand, Light Buggies, Farmers' Wagons, and Sleighs of the most approved style, made of the best Eastern Timber.

All who are in want of any of the above articles will do well to call and examine before going east, as we are confident that the price will be satisfactory. Terms made easy and work warranted. Brick Shop, Corner of Purdick and Water street.
Kalamazoo, Mich. Jan. 1855. feb-17.

EAGLE FOUNDRY.

W. BURT & SON,

—MANUFACTURERS OF—

STEAM ENGINES,

Mill Machinery, Iron and Brass Castings, Screws of all kinds and sizes, and repairing done generally.

KALAMAZOO, MICH. [ap-17]

O. H. GREGORY, BOOKSELLER AND STATIONER

DEALER IN

FANCY ARTICLES, &c.,

At the Old Established Bookstore, Main St., KALAMAZOO, MICH. [17-17]

CORNELL & HOGEBROOM,

—MANUFACTURERS OF—

CARRIAGES AND BUGGIES.

ALL orders promptly attended to, and all work warranted, for we use none but the best of materials. Shop near Arms & Co.'s Machine Shop, corner of Rose and Eleanor streets, Kalamazoo, Mich. 55jyt

S. A. SPERRY.

MANUFACTURER of Carriages, Buggies and Wagons, which are constantly for sale.—Painting and Trimming executed with dispatch.—Also Blacksmithing in all its various branches. All articles of work done to order. Shop on Detroit St., Ann Arbor, Michigan. jett

AGRICULTURAL Furnaces, from 1/2 to 2 bbls. size.
Angit. By D. O. & W. S. PENFIELD.

AYER'S CATHARTIC PILLS

Operate by their powerful influence on the internal viscera to purify the blood and stimulate its healthy action. They remove the obstructions of the stomach, bowels, liver, and other organs of the body, and by restoring their irregular action to health, correct, wherever they exist, such derangements as are the first causes of disease. An extensive trial of their virtues, by Physicians, Patients, and the public, has shown cures of dangerous diseases almost beyond belief, were they not substantiated by persons of such exalted position and character as to forbid the suspicion of untruth. Their certificates are published in my American Almanac, which the Agents below named are pleased to furnish free to all inquiring.

Annexed we give Directions for their use in the complaints which they have been found to cure.

FOR COSTIVENESS.—Take one or two Pills, of such quantity as to gently move the bowels. Costiveness is frequently the aggravating cause of PILES, and the cure of one complaint is the cure of both. No person can feel well while under a costive habit of body. Hence it could be, as it can be, promptly relieved.

FOR DYSPEPSIA, which is sometimes the cause of costiveness and always uncomfortable, take mild doses—from one to four—to stimulate the stomach and liver into healthy action. They will do it, and the heartburn, bodyburn, and sourness of the stomach will rapidly disappear. When it has gone, do not forget what cured you.

FOR A FLUENT, OR Morbid Inaction of the Bowels, which produces general depression of the spirits and bad health, take from four to eight Pills at first, and smaller doses afterwards, until activity and strength is restored to the system.

FOR NERVOUSNESS, SICK HEADACHE, NAUSEA, Pain in the Stomach, Back or Side, take from four to eight pills on going to bed. If they do not operate sufficiently, take more the next day until they do. These complaints will be swept out from the system. Don't wear these and their kindred disorders because your stomach is foul.

FOR SCORFULA, ERYSIPELAS, and all Diseases of the Skin, take the Pills freely and frequently, to keep the bowels open. The eruptions will generally soon begin to diminish and disappear. Many dreadful ulcers and sores have been healed up by the purgative and purifying effect of these Pills, and some disgusting diseases which seemed to saturate the whole system have completely yielded to their influence, leaving the sufferer in perfect health. Patients! your duty to society forbids that you should parade yourself around the world covered with pimples, blotches, ulcers, sores, and all or any of the unsightly diseases of the skin, because your system wants cleansing.

RHEUMATISM, GOUT, and all Inflammatory Fevers are rapidly cured by the purifying effect of the Pills upon the blood and the stimulus which they afford to the vital principle of Life. For these and all kindred complaints they should be taken in mild doses, to move the bowels gently, but freely.

As a DINNER PILL, this is both agreeable and useful. No Pill can be made more pleasant to take, and certainly none has been made more effectual to the purpose for which a dinner pill is employed.

PREPARED BY
J. C. AYER,
Practical and Analytical Chemist,
LOWELL, MASS.

AYER'S CHERRY PECTORAL, For the rapid Cure of COUGHS, COLDS, HOARSENESS, BRONCHITIS, WHOOPING-COUGH, CROUP, ASTHMA AND CONSUMPTION.

This remedy has won for itself such notoriety for its cure of every variety of Pulmonary disease, that it is entirely unnecessary to recount the evidences of its virtues in any community where it has been employed. So wide is the field of its usefulness, and so numerous the cases of its cures, that almost every section of the country abounds in persons publicly known, who have been restored from alarming and even desperate diseases of the lungs by its use. When once tried, its superiority over every other medicine of its kind is too apparent to escape observation, and where its virtues are known, the public no longer hesitate what antidote to employ for the distressing and dangerous affections of the pulmonary organs which are incident to our climate. And not only in formidable attacks upon the lungs, but for the milder varieties of COUGHS, HOARSENESS, &c.; and for CHILDREN it is the pleasantest and safest medicine that can be obtained.

As it has long been in constant use throughout this section, we need not do more than assure the people its quality is kept up to the best that it ever has been, and that the genuine article is sold by—

J. S. FARRAND, Detroit;
F. Eckstein Jr., Cincinnati, Ohio; J. H. Reed and Co., Chicago;
C. West and Co., Toledo, Ohio; Whelden and Rhodes, Sandusky, Ohio; Wm. Flake, Cleveland, Ohio.

AUSTRALIAN, Tuscan, and Blue Stem Seed Wheat, from 2 shillings to 24 shillings per bushel.
aug21 D. O., & W. S. PENFIELD.

THE GREAT ENGLISH REMEDY!

SIR JAMES CLARK'S CELEBRATED FEMALE PILLS

PROTECTED
BY ROYAL



LETTERS
PATENT.

PREPARED from a prescription of Sir James Clarke, M. D., Physician Extraordinary to the Queen. This invaluable Medicine is unfailing in the cure of all those painful and dangerous diseases incident to the female constitution.

It moderates all excess, removes all obstructions, and brings on the monthly period with regularity. These Pills should be used two or three weeks previous to confinement; they fortify the constitution, and lessen the suffering during labor, enabling the mother to perform her duties with safety to herself and child.

These Pills should not be taken by females during the first three months of pregnancy, as they are sure to bring on miscarriage, but at any other time they are safe.

In all cases of nervous and spinal affections, pain in the back and limbs, heaviness, fatigue on slight exertion, palpitation of the heart, lowness of spirits, hysterics, sick headaches, whites, and all the painful diseases occasioned by a disordered system, these Pills will effect a cure when all other means have failed, and although a powerful remedy, do not contain iron, calomel, antimony, or any other mineral.

Full directions accompanying each packet. Price, in the United States and Canada, one dollar.

Sole agents for the United States, I. C. BALDWIN & CO., Rochester, N. Y.

N. B.—\$1.00 enclosed to either of the Agents will ensure a bottle of the Pills by return mail.

Morris M. Peck, wholesale and retail agent, 122 Jefferson avenue, (near) Detroit; and sold by H. Simonsen, E. C. Torrey, Moore & Durfee, and by druggists generally. (oct7)

THREE THOROUGH-BRED SHORTHORN BULLS.

FOR SALE—The subscriber offers for sale, at reasonable prices, three thorough-bred Shorthorn Bulls, to wit:

1. **LAMARTINE**, No. 624, American Hereford, red and white, or more properly a roan; bred by Samuel Cooke, Esq; calved Dec. 29, 1848; got by Sultan, 165, out of Kate Kearney, vol. 1, page 189 A. H. B., by Proclamation, 4838; Florida by Young Bolivar, 3185; Pennsylvania by B. H. var, 80; by imported Gloucester, 1074; by imported Champion, 864; by Young Comet, 157. He is a large and stylish animal, and a sure and fine breeder. Price \$150.

2. **GOV. MORROW**, No. 513 Am. H. Book, red and white; bred by L. F. Allen, Esq., Black Rock, N. Y.; calved April 6, 1854; got by imported Duke of Exeter, 419, (10, 112), out of Carnation 9, by Broomdon 287; Blanch Rose by Broomdale 286; by Barnby 14, (1677) by Comet Halley, 1855; by Durock 454; by Manda, 4455; by San Martin, 25; by Adam, 717. He is of good size and form, and will make a large, massive and beautiful animal—has taken the first premium in his class at the Warren County Agricultural Show—Price \$200.

3. **ALLEN**, No. 206, Am. H. Book, red and white, calved Nov. 4th, 1854; got by Duke of Exeter, 449 (10, 152) out of Rosanna by Broomdon, 287; by Broomdale 286; by white Comet, 164; by Comet Halley, 1855; by Durock, 3666; by Manda, 5458; by San Martin, 2599 Mrs. Motte by Adam, 717. He is a promising calf, and bids fair to make an excellent breeder. Price \$100.

These cattle may be seen on my farm, adjoining Lebanon, Ohio. dec. 21 E. G. CORWIN.

EMERY'S AGRICULTURAL WAREHOUSE AND SEED STORE!

45 Franklin St. - Chicago, Ill.

THE subscriber has opened a Depot at the above place for the sale of a general assortment of Farm Implements and Machinery, field and garden seeds, &c., &c.

Having had a long experience in the trade, in connection with the Albany Agricultural Works, Albany, N. Y., and a very general acquaintance with the demands in the West, he feels satisfied he can meet and supply the wants of the farmer and gardener to their entire satisfaction. No pains shall be spared to furnish the very best tools and seeds; he will give particular attention to the furnishing of the celebrated Emery's Patent Horse Powers, Thrashers &c., and by this arrangement the public will not have to be at the risk and delay of sending east for their goods, as I shall keep a full supply constantly on hand.

The public are respectfully solicited to call and see my assortment.

Catalogues furnished on application. Dec. 1, 1855.

HENRY D. EMERY.
(2)

NEW PRINCIPLE! NEW REMEDY! NO POISON!**RHODES' FEVER AND AGUE CURE.**

FOR THE PREVENTION AND CURE OF

Fever and Ague, or Chill Fever, Dumb Ague and other Intermittent and Remittent Fevers, also, for Billious Fevers, accompanied by Typhoid Symptoms, Typhoid Fever, Yellow Fever, Ship and Jail Fever, General Debility, Night Sweats, and all other forms of Disease, which have a common origin in MALARIA or MIASMA.

The diseases are common to many localities of the United States, but wherever they prevail, North, South, East or West they all equally spring from the same miasmatic cause. The great variety of symptoms and forms of disease is owing principally to different ages, sex, constitution and habits of the sufferers; but as the cause is the same, they will all equally yield to a remedy that is competent to overcome or remove that cause.

By the laws of nature, every principle has its opposite, and for every disease, or cause of disease, there is a remedy, or in other words a specific remedy. All Malaria, whether arising from marshes, stagnant water, decomposition of Animal and Vegetable matter, or even newly cleared lands, is the same in character and effect: it is a poison floating in the atmosphere, causing disease to all who breathe it. In accordance with those unalterable laws governing the unerring affinity subsisting between opposites, there is in the preparation before us, offered to the public.

THE NATURAL ANTIDOTE TO MALARIA,

which neutralizes the poison whenever it comes in contact with it, even in the open air, and when taken internally completely purifies the system affected by it of its baneful influence, and thus restores and preserves health.

The remedy is believed to be entirely new, and unknown to any but the Proprietor who distinctly claims the following extraordinary results from its use:

It will instantly check the ague in persons who have suffered for any length of time—from one day to twenty years; and by continuing its use, according to the directions, a radical cure will be effected, the patient continuing free from the complaint for years. In its operation on the poison in the system, it will immediately relieve all the distressing symptoms of bilious or ague diseases, and when the disease is cured it will entirely prevent the accession of

GENERAL DEBILITY AND NIGHT SWEATS,

which are often followed by the administration of other medicines. The patient at once begins to recover appetite and strength, and continues to improve until restored to perfect health.

By its use fever and ague may be banished from every family and class in the community; farmers, mechanics, and all laboring people may be using this article as a

PREVENTIVE,

and pursue their respective avocations in perfect safety from ague, or bilious attacks during the sickly season, which is often to them the most valuable part of the year.

Since the introduction of the CURE in every part of the United States, its success has been so complete and unvarying as to have fully proved these assertions in favor of its extraordinary merit.

When these declarations were made at the date of its introduction, they seemed incredible to many, even of the most candid minds, because all the resources of science had been taxed in vain to subdue Ague sufferers, all their remedies or treatment, whether scientific or empiric, have been limited to the use of poisonous and destructive drugs, such as Arsenic, Quinine, Mercury, Strychnine, &c. The effects of these are sometimes worse than the disease they subdue, and when such remedies fail, or give only temporary relief, their poisonous effects are only superadded to the poor sufferer's first complaint.

On this account, ague sufferers should be particularly careful about using any secret Fever and Ague remedies, notwithstanding the makers of them uniformly assert that they may be taken with perfect safety, even when it is notoriously well known that their potency depends solely upon destructive poisons.

Now, as a proof that the Remedy is not only valuable on account of its powers to cure disease, but that it is also

WORTHY OF PUBLIC CONFIDENCE**BECAUSE OF ITS****SINGULAR AND ENTIRE HARMLESSNESS.**

The following certificate from one of the most celebrated chemists in the United States, has been obtained, and a copy of it is attached to every bottle:

New York, June 11, 1855.

I have made a chemical examination of "RHODES' FEVER AND AGUE CURE," or "ANTIDOTE TO MALARIA," and have tested it for Arsenic, Mercury, Quinine and strychnine, but have not found a particle of either in it, nor have I found any substance in its composition that would prove injurious to the constitution. J. A. ESCH, CHEMIST, N. Y.

It is a stubborn fact, therefore, that this Remedy is destined not only to relieve the human family from malarious diseases but to do an equally good work by preventing the taking of other medicines which do harm.

The entire absence of any beneficial ingredient, makes this Remedy not more valuable as a cure, than it is as a preventive.

No class of diseases is so easily managed as the one under consideration, if the medicine be taken in advance. This is owing to the diseases being produced by one and the same cause, and

therefore all, both residents and travellers, should protect themselves by the timely use of this preventive, and not wait for the poison already lurking in the veins, to develop itself in a violent attack. Take the cure as a preventive, and so destroy the poison before it does harm.

DIET.—Directions for diet are highly important, and must be closely observed. The Diet should be simple, plain, prepared, and in other respects such as the patient has found to agree best with him. If, however, he is naturally bilious, much meat while in a hot climate, will be found to be decidedly injurious, and a vegetable and highly nutritious diet, far preferable. Those differently constituted, may use a more generous diet. Meat, when eaten, should be tender, juicy, and not overdone. The food should be thoroughly masticated, and regular hours for meals observed. Since costiveness or unhealthy looseness of the bowels, is very pernicious during the sickly seasons, the state of the bowels should be closely watched and, if possible, regulated by diet. The patient can in most cases, easily accomplish this most desirable end, by refraining from things which constipate, and taking such diet as loosens the bowels if costive; and so on the contrary if too loose avoid everything of a relaxing nature.

Among other articles of diet, the following possess evaporating qualities: common fine wheat bread, more especially that made by the baker, because it too often contains alum in its composition; boiled milk; cheese; pepper in any form; salted and smoked meats and fish; and dried sugars; but coarse wheat bread of domestic make; corn bread; corn and rye bread; fresh butter; raw milk; rarely cooked fresh meats, especially venison and pork; raw sugars and olives, are laxative.

HABITS OF LIFE.—Avoid out door air from the time of sunset until an hour or two after sunrise, for the malaria or miasmata of infected districts, is most abundant and active during the night, a bright sun soon causes it to disappear. Also avoid exposure to damp chilly winds, over exertion, irregularity of habits, anxiety of mind, or other like predisposition, causes. Sleeping apartments located in the upper stories are much more healthy than those of the first or lower one, because the poisonous air is the heaviest. The system should have all necessary repose.

Some constitutions are able to resist all influences for months or years, while others are so tormented by an ague attack after only a few days exposure. And it generally happens that those cases most speedily produced are the most speedily cured, while those whose constitution have been gradually undermined by the subtle poison lurking in the system for a length of time, require a greater period in which to regain their health.

In most instances there are several days warning given by premonitory symptoms before the disease breaks out. Be sure to heed these, and by commencing the use of this medicine according to directions, you are assured of arresting it in advance, and of being entirely free from any ague attack during the whole season. Just complete the trying cost of this article with the immense loss by time consumed by sickness, and also what an argument the great difference is in favor of using this certain preventive.

The following direction for using this medicine must be strictly observed.

If the patient is suffering from any form of Intermittent Fever, or Ague it should be taken three times a day, half an hour before each meal, and so continued until the patient feels that a permanent and radical cure is effected. Merely "breaking the chill" is not curing the disease; it is only the commencement. If the patient has been diseased a long time, or for a long time exposed to Malaria, the greater the period required for an effectual cure, such may require several bottles of this remedy. One or two bottles will suffice for ordinary cases; one bottle will occasionally answer, but cannot always be relied upon for a permanent cure. It will also be prudent to take it once or twice a day, according to the unhealthiness of the locality, not a heavy frost appears, if in a cold or temperate climate; if where frosts do not occur, then it should be taken till some little time after every vestige of the complaint has disappeared.

It will generally be found necessary to precede this medicine by a mild cathartic or an antibilious purgative. The very best thing for general use is a moderate dose of Castor Oil, the object of which is to cleanse the stomach and free the biliary passages. Remember that where this is necessary, or there is costiveness, it must be taken, or the operation of the antidote will be seriously obstructed.

THE DOSE.—The bottle must first be shaken until all the ingredients are thoroughly mixed. The quantity for an adult is a table spoonful. It will be best, however, for ladies or feeble patients to commence with two-thirds the quantity. Any sensation of nausea, or unpleasant feeling at the stomach, is a signal for the dose to be lessened. Most people could take three times the amount without any uncomfortable feelings.

For children above six years of age, about one-half of a table spoonful; and from three to six years, one-third of a table spoonful.

From one to three years, thirty drops; and under one year, ten to fifteen drops, taken clear or in a little water. Much larger quantities, however, than are necessary to expel disease may be taken without any injury.

ONLY CAUTION.—In certain specified cases pour the contents of one or more bottles of the Cure into small vessels, (dining plates) and place them in sleeping rooms; for the vapor rising from the medicine, and also the air wafted across, or circulated over the drops of it, after the liquor is evaporated, will counteract and destroy, to a degree commensurate with its exposure, the miasmata or poison contained in the apartment. This mode of exhibiting the Cure could likewise be resorted to, when very young infants are exposed to malarious situations.

The bottles in which this medicine is put up have the words "RHODES' FEVER AND AGUE CURE" blown in the glass, and on the outside wrapper is the name of the medicine, (the copy right of which is secured,) and the signature of the proprietor. These precautions are adopted to prevent counterfeits and imitations.

The reliance for its success is entirely upon its actual merits wherever it is introduced and used. These will be considered sufficient.

Prepared and sold by the proprietor,

JAMES A. RHODES, Providence, R.I.

Extract of a Letter from Prof. Fletcher, who was cured while engaged at Brown University, Providence, R. I.

INDIANAPOLIS, IND., March 1, 1855.

JAMES A. RHODES, Esq.,—Dear Sir:—Yours of the 15th ult. has been received, and I am glad to hear that a medicine so effective is to be introduced into this *aguish* country. I have the greatest confidence in its success, and can reassure you of its happy effect upon me in entirely breaking up the chills, and leaving me strong and healthy.

I like the statement on your wrappers, that you will let the medicine stand on its own merits, and standing thus, I am most sanguine of its success.

I expect to travel over a large portion of our state this Spring, and I shall have abundant opportunity to recommend it verbally. Wherever I go I shall take great pleasure in thus testifying to its merits, and if you will instruct your agent to let me have a few bottles, I will carry them with me to distribute for your benefit.

In haste, I remain, truly yours,

MILES J. FLETCHER.

Had the Ague for Twelve Years.

PROVIDENCE, June 29, 1855.

Having been informed of the illness of a poor but worthy woman, who has not been free from Fever and Ague a month at a time for the last twelve years, I supplied her gratuitously with Rhodes' Fever and Ague Cure. She took in a four bottle, which completely restored her to health and strength, and as four months has now elapsed, there is no reason to doubt the permanency of the cure.

I am also aware of many other cases in which it has been used, and have never known it to fail.

C. A. MASON, Apothecary.

PINE RICH, Michigan, July 21, 1855.

DR. J. A. RHODES—Dear Sir:—Your Cure for the Fever and Ague has thus far performed wonders. It has not failed in one instance to perform a quick and permanent cure. Some who have been troubled with the distressing disease have been entirely cured by using one bottle of the Cure. Please send us immediately four dozen, as we have but three bottles remaining.

Truly Yours,

LATHROP & McLEAN.

The following letter shows the good effect of "RHODES' FEVER AND AGUE CURE," and the bad effects of poisonous medicines taken previously, which the lady will probably never get rid of:

SOUTH DORHAM, Mass., Aug. 23, 1856.

DEAR SIR—You wished me to write as to the health of my patient, after taking the medicine you sent, which I now take pleasure in doing.

The patient was my mother. She has lived in Alleghany county, N. Y., for five years, and last fall, for the first time, had the Fever and Ague, which she cured in a short time by the use of * * * * * Fever and Ague Pills; but in March she came here to live with me, and in May was taken again with it. She has taken the medicine you sent—she took the last some four weeks ago—and she seems to be cured of the disease, and her health is quite good now, but her joints and bones seem to be sore, and pain her some.

The medicine I think is very good, and I could recommend it to ague sufferers, and I would procure it before any other within my knowledge for that disease.

Yours, truly,

CLARKES R. KNOWLTON.

PASTEGO, N. C., Aug. 27, 1855.

DR. JAMES A. RHODES—Dear Sir—I take pleasure in assuring you of the complete recovery of my daughter from Fever and Ague, of which she has suffered almost without intermission for over five years past, although I had tried various kinds of medicine and treatment.

At my request Mr. Reddick ordered from you two dozen, and I

can say that it has not only cured my daughter, who took two bottles, but every one who has used it. This part of the country is very swampy and sickly.

With this Mr. Reddick sends you the money for three dozen more.

Respectfully yours,

JAMES GAYLORD.

LETTER FROM A POSTMASTER.

MAXWELL, Delaware, Co., O., Aug. 19, 1855.

MR. J. A. RHODES—Dear Sir—Your medicine has met with the most favorable success in this neighborhood. I have about five bottles left. I gave it to them at first, "if no cure no pay," although I was not authorized by you to do so; but I took the responsibility on myself. But not a bottle has come back, and as I am almost out of the article, I wish you would forward me one gross of the bottles, if you see proper to do so, and I will be punctual in payment. I inclose fifteen dollars on the medicine I have received, for which please send me a receipt. Ship the cure to me as soon as you can—there never has been as much chills and fever, since I lived in the State as at present.

Yours &c.,

RICHARD MARTIN, P. M.

No. 84 BACK STREET,
South Brooklyn, N. Y.,
Sept. 7, 1855.

DR. J. A. RHODES:

Dear Sir:—The wonderful cure your Fever and Ague medicine has effected on me, compels me to say it has acted with miraculous effect. I had been suffering for two months, this summer with the complaint, (which I caught in Pennsylvania last fall) and during my engagement with the "Ossians Bards." I was seldom free from it—it weakened me—destroyed my energy—and confused my mind.

During our Eastern tour I enquired for your medicine but could not get it in New Hampshire, Vermont or Maine. After the Bards disbanded I went home, and was again taken sick—the first bottle cured the chills and fever.—although after two doses I was better,—feeling a little feverish, through over exertion by walking in the sun.—I took another dose, and the second bottle has entirely cured me.—I am getting robust and well—and it would be ingratitude in me not to inform you of the efficacy of your valuable medicine.

I am constantly travelling in all parts of the United States, in the Concert business, and shall feel much pleased to recommend it to all persons suffering from this distressing complaint.

I sang in Providence, at Howard Hall, in June; but did not then know of your Cure.

If you want a certificate of its efficacy, please write me a line and I will give you one. It may be of some service to you, as I am well known throughout the country; especially in Pennsylvania, Ohio, North Carolina, Illinois, Virginia, &c.

I remain,

Your Grateful Servant.

W. B. HARRISON.

P. S.—I should have said that I took quinine in considerable quantities, which only checked the chills; but your medicine effected a perfect cure.

PROVIDENCE, Ill., Aug. 9, 1855.

DEAR SIR—* * * * * I might as well mention here, that every bottle I have heard of being sold, has given good satisfaction. The agents that I have left medicine with say that it ranks among the best of patent medicines, and that after its good qualities once become known, that there will be more of it sold than of any other article of medicine in the State.

Respectfully yours,

JOSEPH SMITH.

FEVER AND AGUE MEDICINE.—In another column of to-day's paper will be found an advertisement for "Rhodes Fever and Ague Cure." We are not in the habit of puffing medicines, but desire to say for the benefit of the afflicted, that Wm. N. Rowe, merchant Shreveport, who has it for sale, informs us that he has sold several dozen bottles, and in every case it has effected a cure. This proves the medicine to be good, and we take pleasure in bringing it before the notice of the public.—"Odd Fellow," Boonsboro, Md., Sept. 4.

For sale by Druggists everywhere.

For Sale by HIGBY & DICKINSON, Detroit.

A Harmless Ague Remedy is a Public Benefaction.—See what the President of the Pharmaceutical Society of Missouri says of Rhodes' Fever and Ague Cure, or Antidote to Malaria:

St. Louis, Mo., Nov. 10, 1855.

Having noticed the certificate of chemical analysis given by the celebrated chemist, Dr. J. R. Chilton, of New York City, in favor of Rhodes' Fever and Ague Cure, that it contained neither Quinine, Arsenic, Mercury, or Strychnine, and receiving numerous applications for it, I was induced to send to Mr. Rhodes for the medicine. Since then I have disposed of a large quantity, mostly to residents of this city, who have invariably been cured by it, and to whom I can refer. I am, therefore, satisfied in recommending it to be all that the proprietor represents.

EDWARD S. WHEATON.

Agents in Detroit, GEO. B. DICKINSON & CO., and sold by Druggists generally throughout the United States, Canada, &c.

JAMES A. RHODES, Proprietor, Providence, R. I. Jan. 30, 1856.

CROSS-CUT SAWING MACHINE, WITH SAW MADE EXPRESSLY, AND RAIL-ROAD LOG CARRIAGE 24 FEET LONG,

Arranged to saw any sized Log—Crooked, Knotty or Straight, any length up to 40 Feet. Requiring

Only one Hand to tend it,

AND ONLY

Two Horses To Drive It,

Adapted to all kinds of

Threshing Powers,

Fitted for BAND AND TUMBLING ROD, and will saw from twenty to thirty-five cords Wood, Staves, Shingle Blocks or Hubs.

WARRANTED COMPLETE,

And delivered, free from charges, at any point on the Michigan Central or Michigan Southern Rail Road, for \$60. Orders will meet with prompt attention.
Kalamazoo, Oct 20th, 1855. nov-3m

GEO. N. BOLLES.

J. D. HARRIS & CO.

PROPRIETORS OF

RUGGLES SELF-ACTING CHEESE-PRESS.

Patented July 4th. 1855.

THIS is a press in which the cheese applies its own power, commencing gradual, and steadily increasing in power, until the cheese is sufficiently pressed—requiring no additional weight, the weight of the cheese being sufficient to press itself. It requires no attention after it is put into press until it wants turning, then all you have to do is to take it out when sufficiently pressed.

All persons wishing to purchase State or County rights, for any part of the United States, can do so on liberal terms, by applying to the subscribers at Fitchburgh, Massachusetts.

G. D. HARRIS,
A. R. SMITH.

Nov-3m

SEYMOUR & LONG,

CARRIAGE, WAGON AND SLEIGH MAKERS.

KEEP constantly on hand, Light Wagons and Carriages, Open and Top, of their own manufacture, of the most improved patterns. All who are in want of such would do well to call and examine our assortment before going elsewhere. Prices satisfactory, and terms easy.

Battle Creek, Mich. Nov. 10th. 1854.

SEYMOUR & LONG.
dec-6m

ROGER'S WHEEL CULTIVATOR.

THE subscribers are still manufacturing ROGER'S PATENT WHEEL CULTIVATOR, and have the exclusive right of making and vending them in the counties of Calhoun, Kalamazoo, Cass, Van Buren and Berrien. This machine has taken the highest premium at the State and County Fairs wherever exhibited, and is the BEST WHEEL CULTIVATOR now in use for preparing summer fallows, covering seed, and cultivating corn. All orders filled on short notice. Price at our Foundry, \$30 each.

We also manufacture STEAM ENGINES, MILL IRONS, and agricultural implements in general. use.

A. ARMS & CO.
oct-17

A CHANCE TO MAKE MONEY!

PROFITABLE AND HONORABLE EMPLOYMENT.

THE subscriber is desirous of having an agent in each county and town of the Union. A capital of from \$5 to \$10 only will be required, and anything like an efficient, energetic man can make from three to five dollars per day; some of the Agents are realising twice that sum. Every information will be given by addressing, with a stamp to pay return letter.

WM. A. KINSLER,
Box 1223, Philadelphia Post Office.

dec. 21

CARR & HUGHES' IMPROVED BRAN-DUSTER.

THE SUBSCRIBER has purchased the right of this machine for the counties of Monroe, Hillsdale, Lenawee, Wayne, Washtenaw, Jackson, Macomb, Oakland, Livingston and Ingham, and solicits the attention of mill owners to this improvement. It was patented and introduced in 1851, and in every case where it has been used, has given the highest satisfaction, and in no case has been removed from a mill where it has been used. The subscriber is ready to warrant this machine, where used, to increase the yield at least one per cent, and not to lower the grade of the flour in any degree, something which has been sought in vain in all the machines which have preceded this. It is compact, simple in construction, and durable, being made in the most workmanlike and tasty manner, is an ornament in any mill, requires but little power and trifling attention. Any one wishing to purchase can be furnished with a machine and right, with ample reference and certification by addressing

A. M. B' DWELL,
Ann Arbor Mich.

REFERENCES:

N. C. Goodale, Delhi, Mich.	P. R. Loomis, Jackson, Mich.
J. Hart, Battle Creek, "	O. Trip, Ann Arbor, "
Gage & Haynes, Chicago, Ill.	R. Ales, " "

[nov 17]

SEYMOUR & MORGAN'S PATENT PREMIUM

NEW YORK SELF-BAKING REAPER
with Mower attached, for the Harvest of
1856.

THE Reaper is warranted to work well if properly managed, or no sale. The Mower attached is warranted to work as well as any other Mower that is attached to a Reaper, if properly managed, or no sale.

Price of Reaper at shop, with extras,.....	\$145.00
Price of Mower Attachment,.....	30.00
Ketchum's Mower with extras,.....	115.00

SEYMOUR, MORGAN & CO.

BY WILLARD FISHER, General Agent.
P. O. address, Ypsilanti, Mich. dec. 21.

Pure Bred Stock For Sale!

FRENCH SHEEP, Spanish Sheep, Durham Cattle, and Suffolk Pigs.
JOHN S. GOE,
Tipton, (4 1/2 miles east of Brownville,) Fayette County, Pennsylvania.
[17-6m *]